

A STATE PARK ANTHOLOGY

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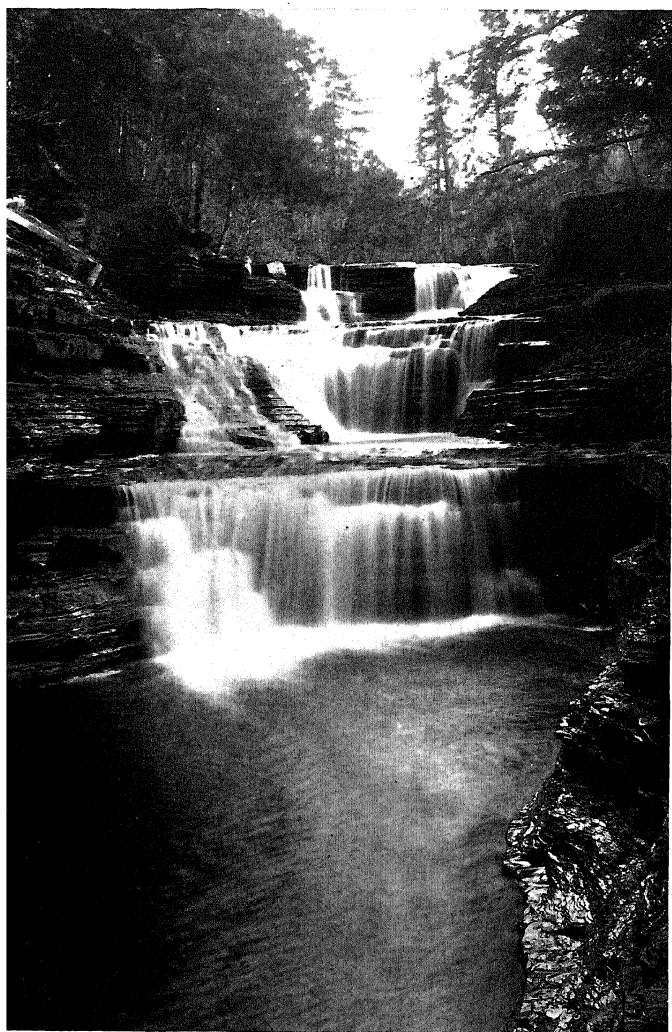
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G. F. Morgan Photo

In Buttermilk Falls State Park, Finger Lakes Region, New York

A STATE PARK ANTHOLOGY

SELECTED AND EDITED BY

HERBERT EVISON

Executive Secretary, National Conference on State Parks

*Woe unto them that join house to house,
That lay field to field,
Till there be no place
That they may be placed alone
In the midst of the earth.*

—ISAIAH 5:8.

NATIONAL CONFERENCE ON STATE PARKS
WASHINGTON, D. C.

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FOREWORD

IT IS now sixty years since the first State Park was established by California in Yosemite Valley, later included in Yosemite National Park. In spite of this fact, it was not until automobiles became fairly numerous, and sufficient good or fair roads had been built to permit ready access to areas at a distance from centers of population, that the State Park movement may be said to have been fairly launched. Such State Parks as had been established in the meantime had generally been created to preserve some outstandingly scenic area, such as the Niagara Reservation in New York, and resulted from a strong public opinion that was concerned as a rule only with a single project, and that had little or no vision of a day when most of our States would be building up systems of State Parks.

It is during the past decade that the establishment of State Park systems has become a widely recognized function of our State governments. In the old days park advocates would say, "Here is an area so outstanding in its beauty that it ought to be saved for the public." Today we say, "Here is a public, vast in numbers, with modern means of transportation, good roads and leisure, more and more cramped by the growth of cities, to whom contact with the beauty of nature and opportunity for the simple types of outdoor recreation are more and more necessary for a healthy mind and a healthy body. Let us find and preserve some of what is left of our unspoiled out-of-doors, so that our people today and tomorrow may have a chance to know what it is like and to enjoy it."

With the spread of the State Park movement have risen an almost endless variety of problems—of selection, planning, maintenance, development, and use. These have been met in a great variety of ways, as is natural in a new field in which no large body of accepted practice has been built up. The movement has been fortunate, however, in that it has attracted the interest of men and women of an unusually fine type and of great ability, and they are responsible for the great advances made in the handling of State Park problems.

The results of much of their study and practical experience

have found their way into print, in one form or another, the volume of such material since 1921 being considerable. It is scattered, however, through scores of publications; some of it, in fact, has never been put in type, and the influence of some of the best State Park thought has been largely limited to small groups, such as those who have attended annual meetings of the National Conference on State Parks or of the Ohio Valley Regional Conference. Papers have been contributed freely at such meetings by men and women whose time and words possess exceptionally high value.

The purpose of this book has been to bring together the best of this material. Large numbers of persons, not professionally concerned with State Parks, will, it is felt, be interested in a better acquaintance with the problems involved, and will derive from these pages a broader vision of their usefulness. Those intrusted with the selection of State Parks and their proper administration will find here much sound and helpful thought and counsel.

In making these selections, there has been no attempt to choose those which had literary merit, though some possess it in good measure. Some of the material is lifted from official annual reports—a section of modern literature which is normally considered almost the ultimate of dryness, though it would be difficult to make any report wholly dry that deals with soundly handled work in any conservation field. The idea has been to quote those who have something specific to offer; who have “thought through;” and who have reached conclusions of more than passing importance, and of fairly general application.

In conclusion, I wish to make grateful acknowledgment to those contributors who have so cheerfully consented to reproduction of their work in this volume; and to those publications and institutions which readily accorded similar consent.

HERBERT EVISON

A STATE PARK ANTHOLOGY

The Task of Conservation

By RICHARD LIEBER

(From the Eighth Annual Report, Indiana Department of Conservation, 1926)

IF FACTS are stranger than fiction, perhaps nothing has proved the contention better than the history of the United States. The conquest of the American continent and the growth of our country indeed challenge human imagination.

But so swift and so revolutionary were the changes of conditions and surroundings from a dense wilderness into a modern promised land, that much of its native glory of woods and of waters, of hills and dales, was lost which better had been preserved.

When our great-grandfathers came to Indiana as young men, it was a place of deep forests or sparkling rivers and lakes filled with game, fur-bearing animals, and fishes. There was an almost unbroken wilderness from Lake Michigan to the Ohio River. Here and there were sparse settlements. The Red Man still made occasional raids upon the settlements, and much land, especially in the northern part of the State, was still held by him. A few roads and a number of trails intersected this vast territory comprising about twenty-three million acres.

By the time our grandfathers were born, tremendous changes had taken place. Much of the native forest was cut down to make room for fields. Much land had to be drained to let off the surplus water. Towns and cities had sprung up and the railroads had come in. It was a time when there seemed to be no end of all the good things that the land provided. The finest timber was used for buildings, furniture, and industrial purposes. It was so cheap that even then some of our present State highways were plank roads; that is, their surface consisted of this native timber. There were so many fish and game of all sorts that the supply seemed inexhaustible. When the season came for the flight of the wild pigeons, for instance, they came in such unbelievable numbers that the sun was practically obscured. It was a period of wicked and reckless slaughter and waste of all things, but it was a care-free time otherwise. There was much cheap land to be had, and the struggle for existence

among the few people that inhabited the rich territory of the State was a comparatively easy one.

At the time our fathers were born, the State had changed very considerably again. Towns had grown into cities and cities into large industrial centers. Railroads and interurbans crisscrossed the State and suddenly the automobile arrived, shortly followed by the flying-machines.

More than twice as many people than at our grandfather's time lived in the State, all trying to make a living out of the same natural resources which were there before, and all competing with each other for an easier position in life.

Again times have changed, and now our younger generation finds itself in entirely different conditions than did their fathers, their grandfathers, or great-grandfathers. In them lives, strongly preserved, the same hankering for the open fields and the wonders of nature, and they have the same need and dependence upon the natural resources that their elders did before them. In some things they have it much easier than their forefathers and in others considerably harder. In the old days few things were needed to sustain life, and these few things were procured by either the father or the mother of the family. Today we go to the store and obtain ready-made goods and have them charged to our account.

The boy of old learned to read the signs of nature; today he reads the printed page purporting to tell him of nature. Formerly his knowledge of natural things came direct; today it comes mostly through indirection. We know how Lincoln, in his parents' lowly cottage down in Spencer County, studied by the gleam of a tallow candle; today the young student throws a switch and has electric lights all over the house.

Formerly the folks traveled slowly and laboriously in ox-carts or, better still, on horseback, but today most of us have automobiles, and instead of the old trails and bumpy roads we have beautiful State highways and county roads to glide over.

News, a hundred years ago, traveled slowly, likewise, while today we have our newspapers, and besides that can turn on the radio. In the old days the boy learned from his father or from his uncle or from some older friend all the magic of the woods and the prairies, the mountains, the lakes and streams. The boy of today who has the same longing is more and mor

restricted to the confines of a city home, and even if he lives on the farm he has no longer the opportunities that his father or grandfather had of seeing and enjoying and living in an undefiled Nature.

What we call civilization indeed is not a thing of unmixed good. We have been taught to believe in development and progress until we have made slaves of ourselves and have abandoned the natural for the artificial.

If the boys of today look about they will have good cause for complaint against their elders, because altogether too many of the beautiful and valuable things in this State were sacrificed to the chase after the almighty dollar under the guise of progress and development. We have practically cut out our beautiful trees and we have failed to raise new ones. The pure crystalline waters of long ago are now muddy, murky streams carrying the refuse of cities and industries. With the loss of our forests, the denizens thereof, the deer, the badger, the muskrat, the otter, raccoons, skunks, pheasants, quail and all the other free boarders of our good Lord have either left us for good or are going fast.

Sooner or later we will face bankruptcy. It was, therefore, a good idea to put a stop to this sort of thing, and it was done by the people themselves through some far-seeing leaders of their own. It was that great American, Theodore Roosevelt, who in 1908, at the White House in Washington, called a conference of all the governors of the country and laid before them plans for the great and patriotic work of conservation.

From that time on dates practical conservation work. Only eighteen years old, it has become the most popular movement in the country, for it strongly appeals to all that is best, sturdiest, and soundest in human nature.

When anything is well done in this country you will notice that the people have taken a great interest in that matter and thereby have helped it along. When anything goes very wrong one may be equally sure that the people have neglected their opportunity and have sat by, permitting a few people to walk away with the boodle.

Here is a great opportunity for every boy that loves his country and wishes to amount to something in the future. While the law says that they cannot participate actively in the

affairs of the township, city, county, State or nation until they are 21, there is no law that stops them from finding out all about this government. Instead of beginning to take an interest at 21, it would be much better for the younger generation, as well as for the country, if the boy and girl found out long before that what self-government means. If these young folks get into the study of it they will find it full of interest and they will come to understand many things which will otherwise remain hidden to them. In fact, there are very many people older than 21 years who do not know the first principles of self-government and yet they are generally found in the front rank of "kickers" when anything happens that does not suit them.

Now the form of government is just like one of those fine looking savings banks—perfectly worthless if left unused and empty. What they want to do with both is to put in a contribution and the more regularly they put in a contribution, the greater will finally be the benefit to them. The form is nothing but a container—the contents count.

This participation in running a great government is not only a duty but a great privilege besides. In these days you hear much about the bad politician who runs things. Well, if nobody else runs them, you can't blame the fellow who makes it a business to look after other people's affairs. But, if you start in with a little competition and get others to do likewise, you will find that a band of determined and earnest-minded people can get any reasonable thing from their government that they are after.

Scenery—A Natural Resource

By STANLEY COULTER

(Address delivered at Ohio Valley Regional Conference for State Parks, Clifty Falls State Park, Ind., 1925.)

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IT IS not surprising that in the evolution of the conservation concept "scenery" should for so long a time have remained unlisted among our natural resources.

The obviously material values are easily perceived and equally easily evaluated. Intellectual, esthetic, and spiritual values are more elusive and more difficult of appraisal.

It is a fairly safe proposition, however, that we have only touched the outer border of conservation if we fail to take into account the greatest resource of any Commonwealth—its citizenry.

It is not enough to conserve material resources—they would be utterly useless, perhaps in some instances a menace, were there not also developed men and women strong enough, clear-eyed enough, patriotic enough to use them effectively and wisely. Back of all conservation of coal and oil and gas, of gold and iron, of forests and soils and waters is the conservation of our manhood and womanhood, insuring generation after generation of sound minds in sound bodies.

Health and contentment are absolute fundamentals if this desired end is to be attained.

But we are fallen upon strenuous times. We live in a swiftly moving age, fiercely driven by the machines which we have invented—invented, indeed, far more rapidly than we have developed the power to use them wisely. The whole nation seems feverishly attempting to keep pace with electrically driven machines. The shrinking of the world because of the annihilation of space and time through inventive genius has made its problems more intricate, more perplexing, and has made the pace yet more heated. Little wonder, then, that men in the plenitude of their strength collapsed at their desks, that sudden shock or unexpected strain took such fearful toll of human life.

Thus conservation looked back of the thing conserved to those who were to use this material wealth, and found a new task of infinite significance and outreach—the task of bringing

health and serenity and clear vision to those who were compelled to bear the heat and burden of the day.

Whether it was wrought out by abstract reasoning, or was a feast of intuition, or sounded deep in some primal instinct, the park system, State and National, was inaugurated; and soon, startlingly soon indeed, we began to realize that scenery—our rivers and lakes, our hills and mountains, our fertile plains and forests, our peaks of privilege whence we could see great vistas and glowing sunsets and myriad stars—is our greatest natural resource.

We live, most of us, in a noisy world—a world full of hurrying to and fro, of rattling machinery, of clanging bells, of shrieking whistles, the world of business. In the midst of this tumult and confusion we lose grip upon ourselves, and feel the strain so keenly that we realize we must break under it unless we find relief. And this nature brings, for it gives us of its infinite life-giving silences. Creative silences, when we find ourselves again, give new values to life and effort and win a new courage for the work still before us. Happy is the citizen of a Commonwealth who can find a refuge such as this park affords, and in its silences find that recreation which he must have or die.

Beyond its silences we need the vastness of nature. It is a cribbed and cabined life we live, bounded by streets and wards, and business and social conventions, and our lives become as little as the circle in which we move to perform our daily tasks. We long to push back horizons, to escape from the littlenesses which have starved our souls. Each one of us, as Professor Bailey said, longs for the "Yondernesses," the backgrounds of the world. So here, as a concrete illustration, we have the silences, the vastnesses, hill upon hill stretching into the distance—in front of us, back of us, on either hand, and the great river winding its way between. Scenery such as this is a natural resource beyond compare, if through its vastnesses it touches our souls and makes them more eager for greater and better work.

We need to develop these scenic spots to the fullest for another reason, perhaps. Most of us deal, after all, with fairly little problems. Our questions are largely wherewithal shall we be fed and clothed, what places shall we occupy at the feast, how large must be our treasure-houses to store our goods. But we come to such a place as this, or to some of the more majestic and

awe-inspiring playgrounds of the people, and find ourselves brought face to face with great questions which, answered, carry us back to still greater questions until we find ourselves in the eternal verities. Back of the phenomenon to the underlying law, back of the law to the Law-giver. We have watched our birds depart upon their long southward flight, and for that flight we seek a cause. We note the majestic, sweeping curves of the Ohio, the waterfalls, and in each case seek the cause. And—when we think we have found the underlying causes—we find ourselves face to face with the question back of all these myriad causes, back of the cosmic forces manifesting themselves all about us: Who? What? Mental strength and poise, spiritual uplift can come only when we confront these great questions, for we become great as we consciously deal with great thoughts—thoughts sounding far deeper than those that have to do with our ephemeral tasks.

And scenery brings us into the presence of beauty, makes us conscious of it, makes us feel its power in exercising our littleness, our unfairness, our selfishness. For, after all, the realization of beauty and the appreciation of beauty form one of the most powerful factors in the determining of capacity for the abundant life.

I have gone up the shoulder of Mount Adams in the afternoon till far above the timber-line. Upon some great granite boulder I have sat and watched the peaceful valley and hamlets far below, the surrounding peaks, the magnificent castles of Mt. Jefferson. I look down into the glooms of the great gulf and across to the mighty bulk of Washington. The sun begins to sink and the west takes on a glory beyond words, while the shadows chase each other through the ravines and over the peaks—then darkness. One by one the stars appear and suddenly from behind a peak the moon bursts forth serene and lambent and clothes the whole scene with ineffable beauty. Gone are meannesses and jealousies and rivalries, never to return as strongly as before or play as important a part in my life, for my soul has been bathed in beauty and for a time, at least, is clean. More than anything else today there is need in this practical age to realize the power of beauty as a creative force, for beauty is grace and form and proportion and symmetry and harmony.

So, scenery or nature through its silences, its vastnesses, its mysteries, its ineffable beauties, enriches mind and spirit and fits us to do the tasks that lie before us with new courage, with truer artistry.

As I said, these values seem somewhat elusive, but they are real; they may be difficult of evaluation in terms of dollars and cents, but they are of incalculable worth in developing a citizenship strong enough, clear-eyed enough, patriotic enough to use our material resources wisely and effectively.

But another value that comes when Nature, through her beauty-spots, begins to lure us more strongly is more easily interpreted in terms of the practical—public health and public prosperity are never dissociated, can never be dissociated. Individual health and individual efficiency bear the same relation to each other. The development of parks at points of scenic beauty or of historic interest brings people into the open, away from dust and smoke-laden air, from unventilated offices and business houses. The healing touch of sun and breeze falls upon them, so that as their minds revel in the beauty about them, their bodies are made more fit for tomorrow's tasks. I think of the tens of thousands of people that visit our parks in Indiana each year and wonder what the net result may be of the increased health and vigor due to these beauty-spots, these breathing-spaces. I am very sure that, computed in dollars and cents, it would demonstrate that scenery is one of the most valuable of our natural resources.

Quite apart from the value to the individual visitor to these parks, it can be shown that scenery, wisely exploited, with service areas properly located, is of immense value to the State in attracting attention to its other resources and to its various economic possibilities. I summer in the northern county of New Hampshire, where the principal industries are hay and summer visitors. Without the latter, the county would be a hinterland, not only physically but in every other sense as well. Switzerland—our own National Parks—all confirm the fact that this least-recognized of our natural resources is one of the greatest of them all. Its proper use will touch more lives intimately and helpfully than any possible utilization of any other one of our resources.

Personally, while I recognize the importance of these measur-

able values last mentioned in attracting immediate attention to our natural scenery as a natural resource, I believe the highest values are those which cannot be so measured by expressing themselves in terms of mind and spirit; in an unconscious growth along mental, esthetic, and spiritual lines in rapidly increasing numbers of our citizens—and a consequent higher plane of life and of effort; in new measures of values, a new sense of proportion; in making it possible for men and women to live instead of spending all of their time and all of their energy in making a living. We are trying in Indiana to utilize our scenery in such a way that this end will be accomplished.

Present-Day Outdoor Recreation and the Relation of State Parks to It

By FREDERICK LAW OLMSTED
(From California State Park Survey, 1929.)

A. GENERAL CONSIDERATIONS

THE magnitude and importance, socially and economically, in California, of the values arising directly and indirectly from the enjoyment of scenery and from related pleasures of non-urban outdoor life, considered in the aggregate and without regard to the means by which they are made available, are incalculably great, and in this summary are taken for granted.

Some conception of the variety and extent of the means by which these values are sought, and of the aggregate price at which they are valued by those who seek them, may be derived from a brief and partial enumeration:

(1) *Automobile pleasure trips and tours.* Riding for no other purpose than enjoyment of the pleasant out-of-doors through which one passes, or with that as a controlling motive combined with some other purpose or excuse, is one of the "major sports" of California. Statistical measurement of its extent is impossible but no less an authority than a member of the State Highway Commission has indicated his belief that half the travel on California highways is of this class. If so, substantially half the annual expenditures on the purchase, operation, and servicing of California's 1,880,000 automobiles, and on the construction and maintenance of some 7000 miles of public highways, is one item gladly paid for obtaining values of the sort we are considering.

(2) *Other means of locomotion through pleasant scenery for the sake of enjoyment,* as by rail, by boat, on horseback, or on foot.

(3) *Commercially operated hotels, resorts, camps, eating-places, stores, etc.,* used and supported by automobilists and others on their pleasure trips, and in localities where they stop for the prime purpose of enjoying outdoor life. Of this business also there are no adequate statistics, but it is enormous.

(4) *Private vacationist dwelling-places* established and used

solely or primarily because of the enjoyment obtainable by means of them, and mainly from the pleasantness of their outdoor environment, ranging from tents and little week-end and vacation cabins in canyon or forest or at the seashore to palatial country estates.

(5) *That share of the passenger and freight business of common carriers, and that share of mercantile, manufacturing, agricultural, and miscellaneous service businesses required for the creation, maintenance, and operation of the above facilities.*

(6) *Other confessedly recreational uses* (i.e. other than by automobile and by occupation of pleasantly situated temporary domiciles as above) of scenically agreeable places on the coast, in the mountains, in the forests, on streams and lakes, etc. (bathing, boating, fishing, and other outdoor sports, nature study, and just plain quiet enjoyment of one's outdoor surroundings), *through substantially gratuitous use of lands not privately owned by the users.* This includes (a) lands held publicly for such use (as parks), and (b) lands held primarily for other purposes with which such use is not inconsistent (such as public forests and water-shed lands, and such as timber or grazing-lands, or vacant areas) which have agreeable landscapes and which the public enjoy either from neighboring roads or public places, or through being permitted to wander on them by sufferance.

Lands held as public parks thus appear only as one minor subdivision, fractionally minute in area, of the vast aggregate of lands from which these scenic and recreational values are even now derived in so large a measure as to make regard for them an important factor in management.

The kinds of values sought by such means have always been part of the joy of living for many people, but in our time, in America, there has been an enormous increase in the proportion of people who have time left for the pursuit of such values after earning the bare necessities of existence.

These values, together with others which directly make life worth living, as distinguished from things which are valued only because they can be exchanged for something one really wants, are the final things which economic prosperity enables people to buy. In California, today, people are using their economic wealth in the ways above indicated to buy values of

this particular kind enormously—incredibly to anyone of a former age or another country. And they will probably seek to buy this kind of values more and more.

How far such values *can* be bought, at any price, by succeeding generations in California will depend largely on the degree to which the physical conditions which make them possible are permanently conserved or are destroyed by the first comers through their wasteful methods of exploiting them.

The enormous development in California of the use of these scenic and recreational values of the out-of-doors has resulted in part from the economic prosperity of the people, leaving them time and means for such enjoyment, and in part from the lavish abundance of naturally favorable conditions of landscape and climate.

But there are signs on every hand that because of this very abundance (and of the increasing rate at which the favorable conditions are being put to use), careless, hasty, shortsightedly selfish methods of exploiting the natural assets of scenic value are rapidly killing the geese that lay the golden eggs.

To take a single type of this destructive exploitation: Every year thousands of "cabin-site subdivisions" and other residential and pleasure resort developments of the types listed as (3) and (4) above are being laid out in the pleasantest spots readily available as private speculations, with the sole motive of making quick sales and "getting out from under"; and in a considerable proportion of cases *in such a crowded and unsatisfactory manner that before half of the lots are actually put to use the natural advantages of the spot for such use are in large part permanently destroyed and the place tends to become a rural slum* in which the occupants fail to get in any satisfactory measure what they hoped and paid for. In every such case a good opportunity is wrecked, the more enterprising lot-owners gradually abandon the blighted spot for a new venture in virgin territory, which in turn is apt to become similarly blighted because those who determine what is done to it lack either the *will* or the *skill* to use the opportunity other than destructively.

The procedure is identical in principle with such destructive exploitation of natural timber resources as converts lands of potentially permanent timber productivity into useless barrens.

The most urgent concerns of the State in this connection

are: (1) *To teach the great mass of well-intentioned people how to get what they want* in enjoyment of scenic and recreational values, *how to get it successfully* for themselves now and on their own initiative, and *how to get it without destroying the natural assets* on which the continued enjoyment of such values depends; and (2) *to curb and limit the activities of exploiters* who would destroy the birthright of their successors, no matter what its value, for the sake of a quick turn of profit to themselves.

The first concern of the State, then, is one of *public education*, including:

(a) Study and research as to the various good and bad methods by which the use of scenic and recreational resources is and can be carried on, and (b) getting the results of such knowledge across to the people.

The second concern of the State in this matter, *direct prevention of unwarrantably destructive exploitation* of such resources, has many ramifications. The chief means of prevention are these:

(a) BY PROPRIETARY CONTROL

(1) *Parks*. Peculiarly valuable scenic and recreational resources of many kinds, which under private ownership and management are specially subject either to destructive exploitation or to a narrow monopolization which makes their enjoyment by the ordinary citizen impossible, can most simply and effectively be protected against wasteful abuse by means of their public ownership and management in perpetuity as parks. To acquire and manage such parks is the prime function of the State Park Commission.

(2) *Other public holdings*. Lands now held, or which may come to be held by the State and its subdivisions and agencies, and by the Federal Government, primarily for other purposes than the conservation and use of their scenic and recreational resources, can, and obviously should, be protected against the unnecessary and wasteful impairment of such elements of scenic and recreational value as they contain by a proper and business-like regard for these values as by-products in their public management; and, in case of the alienation of such lands, by establishing reasonable conditions and restrictions for ensuring a continuance of the same general policy. This is now the

policy of the U. S. Forest Service, in management of the National Forests, constituting the largest areas of publicly owned land in the State, amounting to nearly one-fifth of its entire territory.

But there are many other valuable public lands to which the principle should be systematically applied. The most familiar and widespread of these are the lands of the highway system, the location and boundaries of which, as well as their physical treatment, should be determined in considerable measure, as is now well recognized by the Department of Public Works, by regard for the scenic enjoyment to be derived by the public from their use concurrently with their use for purely economic transportation.

Another notable example, as to which the principle has not yet been officially recognized, is to be found in the tidelands. The State received from the United States, in trust for the people, the entire coast of California up to "ordinary high water," and still owns most of it. This is a vastly important area of publicly owned land, the administration of which intimately affects the scenic and recreational resources of the State.

In this connection the State Park Commission can and should collaborate, in a consulting and advisory capacity, with the various responsible public agencies in charge of such public lands.

(3) *Protective restrictions or easements on private land.* In connection with the creation of the better class of residential subdivisions in America there has occurred within the last thirty years a notable development in the methods of applying a very old legal device, that of covenants entered into by the owners of land in regard to the manner of use of the land, to the end of guarding against forms of exploitation injurious to the community. Methods have been found for making such covenants reasonably elastic and adaptable to changing conditions, instead of attempting to impose a rigid arbitrary control by a "dead hand" as in the old days; and with these improvements in technique the method has become a far more valuable and practical device. There have been some beginnings here and there of the use of this device by agreement between private land-owners and public authorities; as where a park, parkway, or pleasure drive is laid out and constructed at public expense

on a public right-of-way in a manner beneficial to the owners of abutting lands and the latter agree voluntarily, as a matter of public spirit, or of enlightened selfishness, to subject their land along the borders of this public improvement to certain covenants. These covenants provide that the land will not be used in certain specified ways detrimental to the value of the public improvement and to the general attractiveness of the region through which it runs, but are so drawn as not to interfere with uses of the land appropriate to the local conditions. Such covenants have often been entered into, for example, by land-owners along a given stretch of highway, requiring any buildings to be set back certain distances from the highway. In many cases, such agreements have been entered into for a nominal consideration, sometimes upon condition that similar easements are secured throughout the unit of highway in question; and in the latter case the required easements have sometimes been acquired from a recalcitrant minority by condemnation in order to make the whole project effective.

By patience and tact in negotiation and by the application of adequate technical skill, a great many land-owners in California can, I believe, be induced to enter voluntarily into agreements with public authorities that will safeguard the scenic and recreational resources of their neighbors from all the most seriously threatening dangers that attend wholly individualistic management.

(b) BY REGULATION UNDER THE POLICE POWER

To some extent, and under proper circumstances, it is practicable by public regulation to check certain unnecessary and unreasonable impairments of the State's natural resources, such as are often caused by methods of exploiting private property which are needlessly wasteful or destructive of those resources.

In relation to scenic and recreational resources this can sometimes be done by more effective use of the now well-established method of public regulation of subdivision platting, and by extending and perfecting the operation of reasonable zoning regulations in regions where the permanent welfare of the community is clearly dependent on conserving its general scenic and recreational attractions and where the ill-advised exploi-

tation of a few properties may not only conflict with the larger interest of the State in the region but seriously depreciate the aggregate of private property values in the region itself. It is only the more flagrant cases of misuse of private property which can thus be definitely prevented, for it would be contrary to our American political and legal principles to emasculate individual initiative under guise of police power regulation. But it often happens that the deliberate review and consideration of plans prepared on private initiative which is brought about by wholly reasonable police regulations of the kinds above mentioned gives opportunity for constructive education and leads to the voluntary adoption by the individual of much better development plans than would have been followed in the absence of such review.

It is worth while to examine here in some detail two* notable opportunities for the intelligent use of existing public proprietary control, existing primarily for other than park purposes (a² preceding), and of proper police regulation over related private property (b above).

First opportunity: The tidelands.

The State of California and municipalities created by and holding from it, broadly speaking, *now possess title, in trust for the people, to the entire coast of California between ordinary high tide and low tide, and to the submerged lands beyond so far as that ownership can be made effective.* These so-called tidelands are held in trust for the people's use in various ways, primarily in navigation. But the vast majority of them are so exposed and so conditioned that without prejudice to navigation they can and should be administered largely in the interest of protecting the scenic and recreational resources so intimately associated with them. These public tidelands embrace a large and sometimes the major part of the area directly used for recreation at beaches all along the coast. The manner in which their use is controlled and regulated, or left free from regulation, can profoundly influence not only the manner of use of these public lands but also the manner of use and development of the immediately abutting upland even when not publicly owned. At present, except in a few localities, no precise determination

*Only one is reproduced here, as having more general application than the second, the Lower Sacramento River.

has been made of the landward limit of the State's tideland ownership, and no detailed supervision and control are exerted over the actions of abutting owners, who have in some cases, without permission from or supervision by the State, encroached upon its tideland property with pilings and buildings and artificial fillings to the detriment of the interests of the people for whom the State holds those lands in trust.

It should be made the duty of some suitable agency, presumably the Department of Natural Resources, actively and systematically to protect the proprietary interests of the State in all tidelands not yet definitely assigned to specialized uses under specialized agencies, such as the Harbor Commissioners, to ascertain, survey and firmly establish the maximum legal limits of the State's proprietary control; to study the use to which the various parts of these lands can most wisely and properly be put—some for commerce, some for fisheries, some for mineral wealth, some for combinations of uses in which recreation is an important part; and to provide for their proper administration and for the proper regulation of their use and prevention of their abuse by the general public and by abutting riparian owners. To that end there is need of legislation and of appropriations for actively protecting the State's proprietary rights. The values at stake along a thousand miles of almost unwatched tideland boundary, with many thousands of aggressive private neighbors ready to take an ell where they can get an inch, are too vast to be left longer without vigorous safeguarding.

Moreover, it is the right and the duty of the State to bring about the establishment and enforcement of suitable police regulations governing the use of private land abutting on the public tidelands and the public highway of the ocean so far as is necessary to prevent those unreasonable dangers to the "safety, health, morals or general welfare of the people," which are, in fact, liable to occur in the unregulated competitive use of separate parcels of ocean-front land.

For example, an ocean beach, considered either as a geological structure adjusted by nature to withstand the impact of storm-waves or as a place of human recreation, extends as a unit from beyond the seaward side of low-water surf to the upper limit or crest of the wave-washed material that forms the

beach. But ordinarily this unit is owned partly by the State and partly by upland owners, with some very real overlapping of rights. When an attempt is made to fix a sharp boundary of these two "ownerships," the dividing-line has traditionally been described by the courts, broadly, as the line of "ordinary high water," usually interpreted as being the imaginary line of a mathematically computed "mean high tide"; but the rights of the two parties are not as sharply separated by this line as are the rights of two owners of upland real estate by the joint boundary. Where recreational uses of the coastal lands as a whole, including in such uses private dwelling-places and commercial resorts, afford or are likely to afford the maximum values obtainable, as they largely do on the California coast, the natural resources of the locality can generally be used to far better advantage, at less economic cost, with less danger to property and life and with larger returns to all concerned, if buildings and other structures are kept to the landward and safe side of the crest of the beach and if the entire natural unit of the beach is kept free to absorb the impact of storm waves and for recreational uses. Private developments along a beach usually begin in this sensible way, leaving the whole of the beach proper free from fixed structures. But when a subdivision separates ownership of the riparian edge from ownership of the back land, unregulated competition tempts to expansion of structures on the riparian edge seaward, occupying part of the beach, inviting danger and high construction costs, and greatly reducing the total values obtainable from the beach *and* the hinterland.

In such situations a police regulation fixing in advance a reasonable "front building-line" for all private land-owners, in the common interest and with proper provision for adaptation by a competent central authority to meet special local conditions, would prevent an immense final waste of natural resources.

To decree, as a condition of approving subdivision plats, that the now private portion of all ocean shores (that is to say, above "ordinary high water") shall be dedicated to public use for street or park purposes might be confiscatory and unconstitutional. But to decree that such private marginal lands along the beaches shall not be used for certain purposes to which they are naturally ill adapted, which invite danger to

property and life, and which tend to impair the potential aggregate values of property in the region as a whole, would be a reasonable and farsighted use of the State's police power; and in connection with suitable regulation of the public use of the State's portion of all beaches would leave it open to the State, at proper times and places, to acquire by gift, purchase or condemnation so much of the upper portions of the beaches, now privately owned, as it may prove expedient to have in public rather than in private ownership.

A Brief History of State Recreation Areas

By BEATRICE WARD NELSON

(From "State Recreation, Parks, Forests, and Game Preserves,"
published by the National Conference on State Parks, 1928.)

RECOGNITION of the necessity for park areas has been of slow growth, since such areas are a development of the last fifty years, and on an intensive scale of the last ten. There was no desire for parks, outside of a few smaller areas, in the first hundred and fifty years of our history—the Revolutionary Period. Hunting and fishing were then a necessity; now they are recreation.

Probably the earliest park areas in this country were established through an ordinance of the Massachusetts Bay Colony in New England in 1641, when it decreed that "Great Ponds," bodies of fresh water over ten acres in extent, should be forever open to the public for "fishing and fowling." They were a food necessity for the struggling colonists in those early days and so were placed within reach of all. Now the public demand needs them for breathing-spaces and for our necessity, recreation, just as important to the present-day population as to the first hardy settlers—an interesting cycle on the necessity of public lands being dedicated to the public use. The public right to these "Great Ponds" is still maintained. In 1923, because of disputes over the title, the Attorney General of Massachusetts expressed the opinion that such right was still in the Commonwealth. He extended the use of these waters by the people, saying: "The Great Ponds can be applied to such uses as the progress of civilization and the increasing wants of the community properly demand. Fishing, fowling, boating, bathing, skating or riding upon the ice, taking water for domestic or agricultural purposes and the cutting of ice are public rights which are free to all persons so far as they do not interfere with the reasonable use of the ponds by others or with the public rights." The "Great Ponds" are estimated to number 2,000, covering 90,000 acres.

After the Civil War, sentiment developed for the conservation of our scenic treasures, and the first State Parks were established between 1870 and 1890.

Curiously, the first State Park is now our world-famous Yosemite National Park. The Yosemite Valley, with its great overhanging cliffs and waterfalls of extraordinary height, and the Mariposa Grove of big trees, were given to the State of California for recreational purposes by act of Congress in 1865. Actual control of the area and its development by the State was delayed ten years by the claims of settlers. A Commission appointed by the Governor administered the area, and for thirty years it remained a State Park—a magnificently beautiful State Park. The famous naturalist, John Muir, believing that the area should be increased in size and should have national status comparable to the Yellowstone, led a demand for its establishment as a National Park. Congress, in 1890, created a National Park of the area adjacent to the valley and, in 1905, the State Legislature passed an act of retrocession and the valley and grove were added to the Park.

Efforts to preserve from defacement one of our greatest natural wonders, Niagara Falls, begun in 1867, culminated in 1885 in the dedication of the Niagara State Reservation as New York's first State Park. The reservation originally contained Goat Island and near-by islets, Prospect Park at the brink of the American Falls, and a narrow strip along the upper rapids. It is now being enlarged by memorial riverways and reservoirs extending along the Niagara River from Lake Erie to Lake Ontario.

From these beginnings of State Parks it may be seen that in each instance it was a long fight to achieve success. Fifteen years elapsed before Yosemite was consolidated into a real park; it took eighteen years to save Niagara as a park area. From this it is evident that the successful culmination of efforts in State Park work took as long a period of time as the same effort for the establishment of some of our great National Parks. We should, therefore, not be discouraged if our first efforts in saving some of our outstanding State Park areas do not meet with success within a year or two.

In the same year, 1885, Mackinac Island was transferred to the State of Michigan by the Federal Government. This property was originally a military reservation and was for a time a National Military Park, the second to be established. The great natural beauty of Mackinac, with its setting of three great

lakes, makes it an ideal location for a State Park, and added interest is given by its historical past—a past visualized in the old blockhouse and the fort commanding the harbor. The old fort was built in 1780 by the British, and figured in many incidents of early American history. An interesting phase of the development of this park of 2,000 acres is the prohibition of automobiles, tours of the park being made in comfortable horse-drawn carriages.

In the same year the earliest forest preserve was created by the New York Legislature. In 1883 a bill was passed prohibiting the further sale of State land within the Adirondacks, and in 1885 a State Forest Commission was created with custody of the Adirondack State Forest of 800,000 acres. Cutting of timber was prohibited in 1897, and similar action was taken in regard to State lands in the Catskills in 1899, making both areas essentially State Parks. The Adirondack Preserve comprises 3,313,564 acres, of which 1,884,643 acres are owned by the people of New York. The Catskill Park has an area of 155,253 acres.

A few years later Minnesota entered the field, establishing first, in 1889, the Birch Coulee Park, a battleground of the Sioux War of 1862; in 1895 it acquired Camp Release, scene of a siege of the whites by the Indians, and the beginning of the well-known Itasca Lake State Park in 1891. This park embraces the headwaters of the Mississippi River and includes some of the finest remaining stands of Norway pine in the country.

We can see that in the beginning park areas came from several different sources, lands of fish and game value, then areas of scenic beauty, then military reservations no longer needed, and forested lands; a logical and, so it would seem, proper cycle.

For a few years following 1890 there was no interest in the development of State recreational systems. Then, in 1895, the first large, extensive State Park was created when the nucleus of the Palisades Interstate Park of New York and New Jersey was acquired—an outdoor area accessible to a great population. The preservation of this area was due to a desire to save from further destruction the Palisades of the Hudson. In the same year, 1895, the American Scenic and Historic Preservation Society was created with the object of acquiring

State and historical parks. Similar agencies have been created in other States, among them the Trustees of Public Reservations in Massachusetts, the Appalachian Mountain Club, the Society for the Protection of New Hampshire Forests, and the Historical and Archeological Society of Ohio. These organizations have acquired numerous properties in several of the States, which when of sufficient size have become serviceable units in the State Park system.

State Park and Forest developments in the first years of their history were limited to a few States. Such areas offering excellent recreational facilities now exist in one form or another in forty-five of the States. The tremendous growth of State recreational areas during the past ten years has been due primarily to two causes—the advent of the automobile, with the consequent growth of cross-country travel, and the need for the establishment of outdoor areas easily accessible to the public. From this demand came the extensive establishment of State Parks, the recreational use of State Forest areas, and the beginning of the recreational use of a number of game preserves.

Realizing the need for an organization which would give further stimulus to this movement for the provision of outdoor recreational opportunities, a meeting was called in Des Moines, Iowa, in 1921, by a group of well-known conservationists to consider the organization of an association. The National Conference on State Parks was organized as the result of this meeting. The Honorable John Barton Payne, chairman of the American Red Cross, served as chairman from the beginning of the organization to June, 1927, when because of his duties with the Red Cross he asked to be relieved as Chairman, continuing, however, as a member of the Executive Committee. He was succeeded in August, 1927, by the Honorable Stephen T. Mather, Director of the National Park Service, the man with whom the thought of the organization originated.

The objects of the National Conference on State Parks, which is now an incorporated body, are “to urge upon our governments, local, county, State, and National, the acquisition of additional land and water areas suitable for recreation, for the study of natural history and its scientific aspects, and the preservation of wild life, as a form of the conservation of our natural resources, until there shall be public parks, forests, and

preserves within easy access of all the citizens of every State and territory of the United States, and also to encourage the interest of non-governmental agencies and individuals in acquiring, maintaining and dedicating for public uses similar areas; and in educating the citizens of the United States in the values and uses of recreational areas." Since its formation the Conference has held meetings every spring—at the Palisades Interstate Park in New York in 1922 and 1927; at Turkey Run State Park, Indiana, 1923; at Gettysburg National Military Park, Pennsylvania, 1924; at Skyland, Virginia, in the proposed Shenandoah National Park, 1925; at Hot Springs National Park, Arkansas, 1926, and in San Francisco and Los Angeles, California, 1928.*

*Clifty Falls State Park, Indiana, 1929; Linville, North Carolina, 1930.

Public Parks and Health

By ROYAL S. COPELAND, M.D.

(Address delivered at the Seventh Annual Meeting, National Conference on State Parks, Bear Mountain, Palisades Interstate Park, New York, 1927.)

YOU can increase your expectation of life five years by making proper use of the public parks and playgrounds. You should do this, not only because it will add five years to your career, but because neglect of your body is a sin against Almighty God.

Man was a pretty crude person in the beginning of things. But he progressed in knowledge, gradually developing ideas of God and religion. Pretty soon he desired a fixed abode for his deities. A great rock, a bubbling spring, a wide-spreading tree, a mountain top—near one of these he set up his altar. It was in the open air that early man worshipped his God.

Groves of trees became associated with sacrifice and other rites of the ancient religions. Planting trees or preserving a grove was regarded as a religious act. It is said of Abraham that he "planted a grove in Beersheba, and called there on the name of the Lord, the everlasting God."

Since those primitive days we have gone far on the road of religion. Magnificent temples and cathedrals are erected for the worship of God. But there is one temple which is neglected in these modern days. This is the temple of the body. The body of man is just as much a temple as any that can be erected by human hands. Indeed, St. Paul has admonished us, saying, "Your body is the temple of the Holy Ghost."

You cannot have health and vigor unless you have an abundance of out-of-door life. A child may survive the horrors of tenement life. You may live in spite of the burden of neglect you pile upon your poor, suffering body. But without fresh air, sunlight, the sweet odors of the woods, the spring of the turf, the hardening of the muscles from climbing the hills, the alertness of the eye and ear developed by the training of woodcraft, the perfection of digestion, the soundness of sleep from honest fatigue—without your full share of these you cannot live so happily nor so long.

I have no doubt that the boys and girls who have the privi-

leges of Scout Camps, and make use of them every summer, add materially to their expectation of life. The daily use of the playgrounds the rest of the year stores up further reserves of strength. The supervised dental and general physical welfare completes the program.

If I had my way, this manner of living would be made compulsory. In any event, it is a glorious thing that kindly governments and warm-hearted individuals have provided the facilities for it. We cannot afford to neglect the use of the parks and playgrounds because to do so means shortened lives. To make full use of them will lay a foundation of health that in my judgment will carry five additional years of life.

Nothing can be more dangerous, however, than unsupervised group camping. Unless the Palisades Interstate Park were under scientific oversight, it might become the nesting-place of epidemic disease.

It is essential that a watchful eye be on the outlook for contagions and infections. Water-supply and waste-disposal must be above criticism. The milk must come from an approved source. There must be regular and most thorough inspections of campers, food-handlers, and food-supplies.

Fire-hazards, swimming dangers, unsafe boats, insect pests and reptiles, poison ivy, and every other possible menace to the welfare of the campers and park visitors must be under control of the management. These are obligations which run with the privilege of opening parks to the public.

Over-fatigue is even worse than laziness. There must be watchful care of the willing souls in weak bodies. Contests should be limited to the physically fit and arranged for after heart and general muscles are ready for them.

Trained oversight is just as necessary as lake and field and forest. With such supervision the public parks are among the chief blessings of modern civilization.

State Parks

By HAROLD A. CAPARN

(Supplement to *National Municipal Review*, Volume X, Number 11, November, 1921. Reprinted by permission of the author and the publishers.)

JUDGING by the returns from many States, the popular appetite for parks grows by what it feeds on. First we began with city parks in the middle of the last century. Then certain men of vision saw that there was within our borders scenery so rare and so superb that it must not be destroyed, and existing on too great a scale to be owned and controlled by any power less than the United States. Thus we got the National Parks. And now, some twenty-two States (at the time of this writing) have discovered that the National Parks are not so near home as they could wish them, and that they have, within their own borders, natural scenery so situated or so characteristic or of such historic interest that it ought not to be left to the vicissitudes of private ownership, but must be acquired for the use of the people at large, who alone can possess and protect it for the common good. Under private ownership it is never safe from injury for private advantage. It must be made safe for the common advantage by public ownership in perpetuity. Each of these States seems to find its horizon widening with each new acquisition. It becomes more conscious of its expanding needs for new and greater park possessions as it comes to realize the value of those it has.

Reasons for this spreading public sentiment are not far to seek. No one who stops to think can avoid being deeply impressed by the enormous destruction of natural conditions that goes on in order that the earth may support its populations. If man is to grow his crops, the forest must go; if he is to be warmed and transported long distances quickly, and to make and operate his machines, coal and metals must be dug from the mines. There must be destruction in order that he may live and create and prosper. All this is impressive, but not much to be mourned, for it is better that forests and rocks should be destroyed than that there should be no man there to see them. But what seems almost appalling to those who are sensitive to

natural beauty, to whom the unscarred face of the earth seems a thing to be treasured, is the wanton unnecessary waste and ruin too often wrought in converting the resources of the globe to man's uses. The forests, not merely cut, but eradicated, and the soil so burned as to become sterile; the deserts left as the aftermath of coal and metal mining; stark ugliness created where once a garden smiled. Nay, more: the actual joy in destruction, seemingly for its own sake, that seems to possess some of those with the pioneer instinct gone awry, who would rather plunder the hoardings of nature than use them. What is scenery, the gradual evolution of millions of years, to such people? Let it be destroyed, for out of it can be made so many million roofing shingles or yellow newspapers or tons of fuel or cement or tin cans or breakfast food. Surely a good achievement! Presently all these things will have been consumed and so disappear (excepting the cement, which will probably perpetuate yet more monstrosities in concrete), and there will still remain an insatiable population clamoring for more. So, in the end, we have neither the products nor the scenery, but there surely must be a great gain somewhere, for has not Nature been conquered and the ends of commerce served?

"But what good came of it at last?" quoth little Peterkin.

"Nay that I cannot tell," said he, "but 'twas a famous victory."

Two or three generations ago the people who saw and felt these things were few and far between, and their voice was as of one crying in the wilderness; but the sound thereof gained strength as it traveled, and bids fair to go out into all States; for the history of park movements seems to begin at the top; they are set going by a few enthusiasts (often by one only). But now the number of those who feel that we must preserve some of our scenery lest it be all destroyed is so large that they can be found in most communities. They want the coming generations to see what America was, even though only in samples. Their desire will be more and more justified as time goes on, for the increase of population decreases the areas available for popular recreation, camping, and fishing. Therefore, as density increases, park areas ought to increase in proportion, for there will be more to need and more to use them. This, of course, means that the time to acquire territory for

State Parks is *as soon as possible*. We should be as prophetic in foreseeing park needs and as generous in satisfying them as we can, for the longer the waiting, the more difficult and costly the task will be.

We should remember that National and State Parks do not serve the ends of recreation in its many forms alone; they are preserves of our native flora and fauna, and as time goes on they are likely to be the only ones in the future; and they are likely to be the only places for studying meteorology and insect and bacterial life with their influence on growth, soil, and climate under natural conditions, all these being subjects of great importance. As a climax, I may quote the words of Dr. J. Horace McFarland, who points out that the parks "deplete the population of hospitals, reformatories, sanitariums, and penitentiaries," a result to which all the other uses of the parks in some measure contribute.

In one form or another there have probably always been public lands to which anyone had the right of access, and it is one of the surest signs of democracy that a community insists on formal ownership and development or preservation of tracts for its own use and pleasure. The first great public parks of Europe were the demesnes of royalty or nobility, confiscated or otherwise converted to the common use. In our own country, when the city population grew thicker and unoccupied land within their limits scarcer and more difficult to protect, people found that the only way to solve the problem of public rights in open spaces was to acquire title to them and develop them systematically for the best uses of the greatest number. As city population increased still more, and city parks became less adequate to their needs, and as traveling facilities increased, it was found that parks further afield were getting out of the luxury class and into that of necessities. Now that visitors can easily reach them, we are beginning to find that we cannot well get along without them; and though the growth of State Parks may not be altogether due to the growth of the automobile, they have followed it closely. Indeed, it seems doubtful whether State Parks could ever become very popular without the motor-car. In this connection, it is interesting to note that Mr. Stephen Mather, Director of the National Park Service, replying to criticisms at the National Conference on Parks at Des

Moines last January, pointed out that the National Parks were mostly used, not by millionaires in limousines, but by men who brought their families in flivvers and camped out. Similar observations could probably be made for State Parks.

An examination of many park reports and newspaper stories of State Parks shows that the promoters are always at pains to give their reasons for their belief. This is natural and proper. But all the reasons can, of course, be boiled down to the *one great controlling reason*, that people want them and mean to have them. This is not only the great controlling reason, but the best one. It includes all the others, but as incidents. It is like one's dinner. Plural reasons can be given for eating it—to keep up one's bodily health and strength, to help the grocer and butcher to stay in business, and perhaps other reasons, no less altruistic—but the real controlling reason for eating dinner is that one is hungry and wants to eat it. So with parks: people want them because they want them, because their inborn instincts tell them, in ways that cannot be denied, that though they may possibly be happy without them, they will surely be happier with them. The reasons that the park promoters give (seemingly in their own defence, as though they had to defend themselves for defending the parks) are nearly always the same. Compared with the great controlling reason, they savor rather of excuses than reasons, though they are excellent excuses: (1) to preserve natural scenery for esthetic and economic purposes; (2) to provide places for popular recreation; (3) to preserve places of historic interest. Any one of these by itself is justification for the establishment of a State Park, though No. 3 covers but a narrow, partial, and personal field. It is regarded as concerning only the doings of men, and mostly of those men who have lived within the past two or three centuries.

But what of the tremendous history behind and beyond these momentary years? What of the vast stretches of time, the slow processes of geology and biology, the occasional terrific convulsions, the titanic history that preceded our entry on the magnificent stage of the United States; that made it possible for us to occupy it, to live by and on it, and to destroy it? Take, for instance, the account of the geologic history of Starved Rock Park, Illinois. It says that once upon a time the sea covered the interior of the continent and deposited shell material suffi-

cient, aided by some precipitation of lime from the sea-water, to give rise to the lower magnesium limestone 250 feet thick! Later, the St. Peter's sandstone was deposited on the limestone, and over this the silts, sands, and vegetable matter which resulted in the formation known as the Coal Measures. Think of the unimaginable lapses of time necessary for all this (for we can merely talk about millions of years, not really imagine them), the passionless deliberation of the cosmic processes, relentless in creation and destruction alike! All this happened, not merely before the entry of man (a parvenu of the last 200,000 years or so) but long before the evolution, the flourishing and disappearance of many animals, great and small, now known only by their fossilized skeletons; before there were mammals on the earth at all; before the evolution and extinction of the wonderful reptiles of the Mesozoic; before most vertebrates had come into being. We are told that cement is now made from the lower magnesium limestone, so that before the concrete or brickwork that keeps your house or factory safe and stable could be made, all those cubic miles of tiny animals had to live and die and be petrified. Then on the limestone the sandstone, and over that the carboniferous forests had time to grow and perish. And all these things, and many more just as grand and awe-inspiring, had to happen before Illinois could rear Abraham Lincoln and the lesser men who have made the State of Illinois as we know it. Every State in the Union has a history no less ancient and impressive than this, and all are different. Surely a subject of the profoundest appeal to the imagination, this history of the manifestations of the cosmic will and brain before the ephemeral will and brain of man had appeared and struggled. And no place could be better to illustrate and preserve this history than a State Park.

It seems to the writer that every State Park ought to contain a museum, and this museum should contain whatever relics and memorials of the park's human history may be available and appropriate. It should also contain specimens of every kind of rock and other geologic stratum within the park limits. The description of each should be so worded and arranged that anyone could easily see that such and such a rock came from the Azoic, before life existed on the planet at all; another was deposited (perhaps) when the dinosaurs wallowed in the

swamps, when the pterodactyls beat the air, and before flowering plants had appeared; this slate or sandstone or lignite is of the age of the huge and formidable titanotheres, and the ancestor of the modern pig, both extinct these millions of years; or this piece of water-worn boulder was formed by fire when the earth was cooling and deposited in the park by the fourth glacial invasion when the Neanderthal man wandered over the plains of Europe only two or three score thousand years before historic times! There would be a gallery of illustrations of the various ages of the park, labeled thus for instance: This is a probable view in the park in the Carboniferous Era; This in the Early Mesozoic; This in the Eocene; This just before the First Glacial; and These are the animals that certainly or probably roamed through the park in these several epochs, and These are the trees and plants through which they roamed. There should be as complete a collection of fossils and other remains to testify to all this.

It so happens that much of the land especially valuable for its scenic beauty is of little or no use for agriculture. Steep mountain-sides, rocks, lakes, and rivers may combine in the most precious of scenery yet not be worth \$10 an acre for agriculture or other industries.

Any land at all can be turned into a park and restored to natural conditions if it is worth while—not always the original conditions, but something not dissimilar and with the necessary wild character. Even Manhattan Island, though it would be a very expensive process to remove the skyscrapers and the elevated railroads, to resoil and replant it and wait fifty years, could be made to look like the kind of country that Henry Hudson found between New York and Albany. By planting with the proper knowledge and foresight, any land that can be made to grow trees can gradually be made into a good example of wild scenery. Soil and vegetation can be renewed, but rocks, once destroyed, can be replaced only by the processes that put them there. Examples of more or less denuded land made into State Parks are the Harriman-Palisades Park in New York and New Jersey, and the Metropolitan Park system of Boston. Much of the Bronx River reservation in New York was entirely despoiled. All these sites were worth while as parks because of their proximity to great cities. Their scenery, except the Pali-

sades, while often very attractive, is not especially remarkable. In fact, proximity to a great city is sometimes the most important reason for a State Park.

We ought to be especially forehanded in acquiring water-fronts to forestall private ownership. Water-fronts are perhaps the most valuable park-sites, and are the most sought after by private owners who are able, in effect, to control not only their own land, but also the water, in which they may have no property rights, by keeping the public away from it.

State Parks should not necessarily be confined to the rare and most beautiful scenery. They might with great advantage also preserve examples of the average or characteristic scenery of each State. As population increases and the land is absorbed it will become more and more necessary to have large parks in greater number and well distributed so that they may be accessible to all within the State. To future generations it will surely be of the greatest interest to be able to wander among the New England hills, or the Illinois prairies, or Pennsylvania pine-woods, substantially as they were when Columbus sailed from Genoa; to be able to see what America was, not only in her rare moments, but in her every-day garb. This is easy now, but will become more and more difficult as time goes on.

Beauty—The Primary Essential

SOME COMMENTS ON THE CONFERENCE ON STATE
PARKS AT GETTYSBURG, PA., MAY 26-28, 1924

By HAROLD A. CAPARN

(*Landscape Architecture*, October, 1924; used by permission of
Mr. Caparn and the Editors)

IT IS a fair inference that the most important quality of a State Park, its beauty, is not uppermost in the minds of those who have most to do with the subject. They dwell on the things that are most obvious, necessities all of them, easy to classify and analyze and demonstrate, things that anyone can understand and talk about. But of that attraction that makes swarms of people take long journeys to visit a State Park, there was no specific mention. Perhaps this may be disappointing to landscape architects who know that camps and trails would not attract a corporal's guard if it were not for that quality in them to which the convention program made no direct reference.

Of course, this does not mean that any speaker failed to recognize this important fact. They all assumed it as a *sine qua non*: possibly they took it for granted a little too much, like the sunrise or the morning paper, as though the beauty of a State Park could not be injured or preserved or improved or altered, and would display and take care of itself in spite of anything of construction or destruction that might be done within its boundaries. Perhaps in future conventions more opportunity will be given to the analysis of the State Park, and the means of recognizing, preserving, and even of creating its essential character; to the distinction between State Parks and other classes of parks.

It is too often overlooked that beauty is the real and ultimate reason for being of any park. That this is so is plain enough when we reflect that, unless they consider a piece of land beautiful, people will not regard it as a park at all; it is merely a waste space, an expanse of vacant lots. (This leaves out of the question ball "parks" and amusement "parks.")

Yet the art and science of park-making in the popular mind, as expressed by park committees, too often seems to consist in the building of roads and walks and other structures, and the

making of lawns and planting of trees, bushes, and flowers: operations of building, engineering, and horticulture or farming. To the park committee member, the arrangement, proportions, and composition of all these things seems to be a secondary matter: the essential is that they be done, that so many square or cubic yards of concrete or road material should be turned out, and so many acres of lawn should be made. Such things as form and color, relation of lines and spaces, of voids and solids or planted or unplanted spaces—in fact, what is called “design”—seem to be hardly worth the prolonged attention of the practical man. Give him blueprints, and he seems to care not who makes them.

Yet this “design” is the most important of all the varied elements that go to make up a park, the number that gives value to the other ciphers. Neither lawns nor planting nor roads nor walks nor buildings nor any combination of them can properly be called a “park” except as they form a whole, foreseen clearly in the imagination of the designer, whether it be Nature herself or a mere man. If his vision is of something that grows obviously, and as it were inevitably, out of the conditions, that is to say, if it is inspired by the situation and surroundings and proposed uses, then the design will be a good one. In such a way as this, any work of art is produced. Only in such a way, by some such process of thought, can a park worth calling a park be created.

If this be true, then the practical, business-like way to make or develop a State Park or, in fact, any kind of park, is to employ some person with the requisite imagination, training, and experience, to tell him to set his faculties in motion, and to co-operate with the experts in construction. . . . No mere constructive skill can create a work of art, and unless a park is a work of art like the good city park, or a work of the balanced forces of nature like a State or National Park, it is no park: in either case, only a person of trained imagination can be safely trusted to see the possibilities before him of creating the one, or of sparing and developing the other: and this thought is commended to the Practical Man who is confronted with park problems.

The Farmer Needs Parks

By JAMES SPEED

(Address at Ohio Valley Regional Conference for State Parks,
Clifty Falls State Park, Ind., 1925.)

ONLY a few short years ago a public park in the country meant merely a pleasure and picnic spot in the wilds for the city man and his family. That was in those benighted days when the manufacturers of automobiles did not advertise in the farm journals, and gave as their reason that farmers would not buy automobiles because they really had no use for them. In other words, these manufacturers believed the farmer was too busy in the summertime to drive as the city man did.

Today all of this has changed completely. Millions of automobiles are owned and are being used by farmers all over the United States. With these high-powered, swiftly moving and thoroughly dependable machines, they are traveling rapidly out into the highways and byways. The farmer and his family who, in the good old days of the plug horse and the rattling surrey, stayed at home the year round are now out hurriedly visiting friends and relatives. He and his family are beginning to picnic and to prepare their meals in the woods or along the roadside. They are even riding far afield on real vacation trips, clad in khaki and sleeping under canvas as they go. They are to be met every day of the year on every big highway in the country, traveling both for pleasure and for business.

The public has been led to think that the farmer and his family did not care for parks and recreation areas in the country because they were in contact with nature at home on the farm. But the nature seen on the farm under a high state of cultivation is nature more or less harnessed up and carefully driven by the hand of man. So the farmer is naturally anxious to see and to enjoy the great out-of-doors unspoiled by man's care and as it was before the settler tamed it. And this same farmer is anxious for his children and his grandchildren to know and to love nature in her primitive moods.

Perhaps the reason we in our good old United States have to do so much talking, writing and agitating to develop an interest in our recreational areas is because we are so lately out of the

pioneer period of our civilization. The early settlers had a wilderness to subdue and they did a most thorough job of it. And as they subdued the wilderness they learned to look upon nature as something to be fought and fought fiercely. So they cut down the forest trees ruthlessly because they were in the way of pasture-lands and fields of grain. They shot and trapped wild animals in season and out of season because they needed them for food or because the "varmints" killed a lamb or a pig or a chicken occasionally. They slaughtered the birds for food or because the birds sometimes damaged the crop. With these men who were busy subduing a wilderness there could be no idea of conservation of forests, animals, or birds, and we of our day and generation quite naturally inherited this viewpoint in a modified form.

To give you an idea of how firmly fixed this viewpoint was in the minds of the older generation, I can tell you an incident which happened soon after I was grown, and when I was much interested in the study of bird-life. I had wished to buy a reference book on birds, but had to locate a copy in some second-hand book store as the volume was out of print at that time. I advertised and eventually the rather bulky volume came to me through the mail. As the postmaster at Taylorville, Ky., handed me the package, a farmer friend remarked, "What you got there, Jim? You seem to be mighty pleased with it."

"An ornithology," I answered. Then, fearing he might misunderstand me, I continued, "I mean a book about birds."

Reflectively the farmer rubbed his thick, iron-gray beard, smiled rather condescendingly, and then remarked quite emphatically, "Bird book? Well, I can't see what anybody could do with a bird book nowadays. Why, there ain't any wild turkeys left in the hills; bob-white is getting right scarce in this neighborhood; and blamed if there are many squirrels left in the woods either."

So little was thought of bird-life when I was a growing boy that any number of my boy friends had a long string of colored birds' eggs hung from the mantlepieces in their rooms. I had quite a collection of birds' eggs myself, all carefully blown and labeled. If the boys I knew killed a dozen robins for a pot-pie during the spring migration, no one thought anything of it. If a group of us went out onto a bit of pasture land and shot fifty bullbats flying against the sunset sky, it was merely con-

sidered good marksmanship. In fact, when I was a boy, none of us had acquired a constructive viewpoint in our contact with nature. It was still the destructive idea of the pioneer period. In fact, this new viewpoint of conservation is extremely young in America. But the idea is spreading rapidly.

Quite fortunately, the farmer, like his city cousin, is getting away from being a slaughterer of life and is learning to conserve the wild life about him. He needs camping-sites, and he needs wide spaces of woodland and open land because he does not wish to camp or to picnic on some other farmer's property. He himself has suffered too often from the thoughtlessness of campers who have put up their tents on his land. He knows from sad experience the grave danger of woodlot or fence-row fires during a dry spell of weather. He also realizes very keenly the damage which may result to crops from gates left open or fences broken down. State camping-grounds and reservations which would attract tourists would be enormously valuable to the rural dweller who frequently seems unreasonable when he refuses a camping-place for the city man.

In closing, I am very anxious to correct an erroneous idea concerning our parks. When a region is developed for the preservation of wild life we at once speak of it as a reservation or a sanctuary for animals and birds. Then in a short time someone is certain to remark quite blandly, "It's wonderful how tame animal life becomes when it is properly protected."

And everyone agrees with this remark, when in reality sanctuaries do not tame the animals; but they do tame men and women. Wild life is wild only because it has been forced to fear man. Really, these reservations should be called sanctuaries for the taming of men and women.

Besides the beauty of animal and bird life in our State and National Parks, there is the subtle beauty of light and shade, stream and glade, open spaces and the sky through the mosaic of moving leaves. In such parks the tired city man and the doubly tired farmer may learn to appreciate the art of the out-of-doors. That day is almost at hand, and when it arrives the farmer will have a golden opportunity to idealize his job because he of all men moulds and handles the forces of nature. Parks are needed for city folk, and they are also needed for country folk as well.

Saving the Waterways for the People

By TAM DEERING

(A paper prepared for the Pacific Coast Conference of Park Executives meeting at Vancouver, B. C., 1927, and reprinted from *Parks and Recreation*, January-February, 1928)

FOR millions of years men have been habituated to a vigorous life in the open. Our mental as well as our physical life habits have grown up in the environment of the world of nature. Up until the last few hundred years man has been by nature and environment an "outdoor animal." In our own country we doubtless owe much of the sturdy, independent character of our American people to the outdoor life of our pioneers.

Very recently the machine age has ushered in new conditions. Factory and office work, and the prevalence of indoor occupations for both men and women have made life too "soft" for vast numbers. Even our leisure-time habits are "soft," requiring no effort, no thinking, no participation. The slack in physical activity has been paralleled by the increase in nerve-tension. Speed and monotony are the lot of the great mass of the industrial workers, and most others. Meantime, the swiftly moving world has cast off the old anchorage. Traditions, habits, customs, are going into the discard, causing uncertainty and general anxiety. The mental strain is a more serious problem, it would seem, than the physical, because so much more difficult to offset.

Life in the open affords the surest means of compensating for the terrific nervous strain and lack of sufficient physical activity of present-day living conditions. The outdoor life has ever been the restorer of man, the antidote of his physical and spiritual ills, and a means to the exaltation of his spirit.

How shall we again restore man to his intimacy with nature, his inheritance of the great outdoors? A generation ago it would have seemed impossible. But today the automobile, good roads, and the ever-increasing leisure bring it within our grasp. Two great difficulties stand in our way:

The first of these is the exploitation of man's leisure hours. A wholesome constructive outdoor program for spare time will check this. We need not fear the jazz which characterizes this

age if we surround the youth from the beginning with all the lure of outdoor life plus the companionship of men and women who can help him interpret and enjoy the wonders and the beauties of the world about him.

For example take the boy or girl who is habituated to commercialized recreation but ignorant of the world of nature and who is literally afraid of it. I remember a group of girls in Boston who had grown up in one of the worst slum sections. We organized them into a Camp Fire group and sent them, with adult leaders, into the Blue Hills Reservation near Boston for a week's outing. The following morning they returned pell-mell, frightened, terrified by the unfamiliar noises of the woods, and homesick for their streets, movies, and accustomed environment.

There is no need for such an incident as this. We have abundant evidence that if taken in time every child may be encouraged to take a scientific or artistic interest in the outdoor life and this may be woven into his entire life as its most colorful strand. It is altogether a matter of training and education.

The most serious obstacle to man's complete recovery of the great outdoors as one of his chief interests is the rapid disappearance of our natural recreational resources. Only two-fifths of our original forests in the United States remain. The choicest areas in the mountains, the finest groves of trees, the loveliest scenic points, the beaches, lakes, and river fronts are being subdivided and disposed of to private owners who shut out the people from their use. Even our wild birds, animals, and flowers are disappearing.

In face of this unparalleled destruction the danger is that we will not act in time to preserve that which is so vital to the race and which once gone we may not replace in thousands of years, if ever.

The recent flood has made plain to all of us the consequences of our failure to plan ahead and to preserve the forests in the upper regions of the Mississippi River. But how few of us can look into the future and give any estimate of the incomparable physical, mental, and spiritual loss which may be in store for the race and for civilization as a result of our present squandering of our greatest outdoor recreation resources.

We must make comprehensive plans and adopt vigorous measures to preserve our outdoor recreational resources. The

movement to save our waterways should be a part of a national and world-wide movement to preserve the forests, the mountains, and the waterways for the delight and inspiration of mankind. The water-front should be made the central attraction of our civic life and sacredly preserved for the use of all the people. The whole world is attracted by its beauty and recreational advantages.

You may drive for a considerable distance close by the seashore in many parts of Southern California, without ever once getting a glimpse of the ocean, because of hedges, fences, and houses of private owners of the water-front. Cities in Southern California will soon be spending millions of dollars to purchase "peep-holes" through which the people may look out on the unfamiliar ocean surf.

The water-front is so easy to exploit. It is quick to disappear. All along the California coast the people are held back from the use of the seashore by signs put up by private owners, reading "Picnicking on Beach Fifty Cents." It is not known generally that private owners may own the land running down to the ordinary high-tide line and by virtue of this ownership completely shut out all others from the use of the beaches.

The people of Southern California have good cause for seeking to save their beaches. Everybody seems to be coming here to live. Our wonderful beaches, incomparable climate, and beauty of natural landscape present to us a possible danger of overcrowding.

Let the rest of California, and indeed the entire nation, profit from the horrible example of Los Angeles. Los Angeles has spent millions to advertise throughout the country to induce people to come and live in that city and county. People have come in great numbers and then finding Los Angeles lacking in the thing they wanted to make life enjoyable—access to the beaches—they are going elsewhere. San Diego County is getting thousands of these newcomers. "The first question we get from most of the people who come to our office," a prominent real estate man of that county declared, "is, 'Can we get down to the ocean here? We've come to Los Angeles and there you've got to pay just to go and sit on the beach.'" The exclusive beach clubs and private owners monopolize mile after mile of the best beach frontage nearest Los Angeles.

Realizing the paramount importance of taking steps to preserve the beaches for the people while there was yet time, more than 100 organizations in San Diego County united in a movement which was successful in securing the adoption of an ordinance by the County Board of Supervisors to preserve the beaches for the people. The ordinance reads as follows:

"Whenever any tract or subdivision of land is bounded on any side by an inlet, bay or estuary, or by the Pacific Ocean, there shall be dedicated upon and by such map or plat, a roadway or street along said inlet, bay or estuary or ocean front, and such roadway or street shall be given a distinct name; and all such roadways or streets and those roadways or streets leading to such inlet, bay or estuary, or ocean front shall run and be open to the ordinary high-tide line. Any land between said roadway or street and the ordinary high-tide line shall also be dedicated upon and by such map or plat as and for a public park."

This general regulation applied to all new subdivisions, it is believed, will make possible the greatest piece of regional planning in the county. The comprehensive treatment of practically the entire county water-front, the scenic roadway, the ocean-front park, made possible by this measure will add untold wealth to the district, enriching every property owner in the county. The owner of beach frontage dedicating the roadway to the public will be many times compensated through the dedication of a similar strip by all other owners along the water-front with the resulting comprehensive and uniform treatment of the frontage.

During the time that we were presenting the ordinance to our local Board of Supervisors we met without local representatives in the Legislature and through Assemblyman C. D. Eddy a bill embodying the general features of our ordinance, to be applied to the entire California coast-line, was introduced into the Assembly where it passed by a vote of 53 to 21. It was introduced into the Senate by Senator Edwin A. Mueller, where it lost by the narrow margin of one vote. We earnestly hope that it will be adopted at the next session of the Legislature.

The movement to preserve our waterways should include the entire Pacific Coast. A good start has already been made. Mexico has reserved a maritime strip above high-tide line, the

entire length of her coast. She has done this as a military and commercial necessity. San Diego County, adjoining the Mexican line, has acted to preserve her water-front for the people and insure for a distance of 70 miles, the southernmost portion of an ocean scenic boulevard for the Pacific Coast States. Long Beach recently voted \$2,000,000 to procure a half block of ocean frontage and her public officials declare they will as rapidly as possible regain their entire water-front. San Francisco reports that she has possession of her entire water-front. There are many other sections in California where small sections of the water-front have been preserved. The Los Angeles Playground Department is taking steps to procure municipal beaches.

Oregon has preserved some ocean frontage and her Columbia River Driveway is magnificent.

The Seattle lakeside drives, short sections of publicly owned frontage on Puget Sound, the Chuckanut Drive, and other small pieces in Washington show the possibilities in that State.

Vancouver, B. C., has her Stanley Park water-front drive and is extending her Marine Drive.

The frontage preserved is insignificant, however, compared to what should be secured. Broad, comprehensive planning, the length of the coast in extent, and including all the Pacific States, British Columbia, and Mexico, is necessary.

The entire Pacific Coast should coöperate in this movement. Each State, as well as British Columbia and Mexico, should undertake regional planning to save the water-front for the people. Each locality, including city and county units, should take steps to protect their waterways as represented in ocean, bay, estuary, river, or lakes.

By all means let us not overlook the lakes. During a recent visit to the Northwest I found many of the lakes in which I had gone swimming when a boy are now being grabbed up by private owners and are no longer open to the use of the public.

There might well be State and regional surveys and there will necessarily be comprehensive planning over large areas to determine the major units, and plan the interconnecting roadways. Such a survey should be guided at least by those having real comprehension of the hunger of men for natural beauty and the love of men for the outdoor life.

A beginning may be made at once, however, in every local section possessing a water-front. As a suggested course for immediate action, may we propose the following:

Requiring all new subdivisions on the water-front to dedicate a roadway paralleling the ordinary high-tide line and dedicating all the land between this roadway and the ordinary high-tide line to the public as a public park. Procure by gift or otherwise the right-of-way for the water-front roadway where the land is not likely to be subdivided.

Secure as a public park the land lying between existing water-front roadways and the ordinary high-tide line in order to prevent objectionable development and private monopoly of access to the water.

Legislation permitting zoning or control of development on inland side of water-front roadway as well as on the outer side in order to prevent "hot dog" stands and other objectionable development.

Similar treatment for the waterways along rivers, lakes and bays.

The shore-line along ocean, bay, and lake, in California, Oregon, Washington, and British Columbia is beautiful beyond description. Where else in all the world is there to be found a more wonderful combination of mountains and primeval forests coming down to the sea! Let us hope that other sections will profit from the stupid experience of Southern California. It may soon be too late. Delay will be costly, and the damage from harmful occupation may be irreparable. There are millions who want to come out of the vast interior of the country and tour our coast-line.

America needs to wake up to a realization of its natural recreational resources. Ours is a land of surpassing beauty and delight. Let us do away with the ugliness and the harmful occupation which threatens to destroy its charm and use. Every city, county, and State possessing a water-front, whether river, lake, or ocean, has an undiscovered gold-mine which, if made use of, will perpetually enrich all who live in the vicinity. Instead of turning our backs to our waterways we must face about and make them the central attraction of our civic life.

The assets we possess in these waterways constitute a major economic resource. Their development will repay a hundred-fold every dollar invested through increase in land values.

The water-front on ocean, lake, and river does not belong merely to those who live beside it. It belongs as much to the people far removed. It is our country's greatest playground. The people of the Pacific Coast States and all other States have a responsibility to preserve this gift of nature for all those to whom it rightfully belongs: themselves, the people of their back country, the people of America and the world, and the generations yet to be.

State Parks Near Large Cities

By W. A. STINCHCOMB, Cleveland Metropolitan Park District
(From an address delivered at the Seventh Annual Meeting, National Conference on State Parks, Palisades Interstate Park, 1927.)

THE urge for the creation of Metropolitan Park Systems, or reservations of public lands devoted to recreational purposes, within reasonable proximity of our great centers of population, grows out of the following conditions. Primarily, I presume, this movement results because of the great progress made in modern inventions of various kinds, which makes it possible to multiply many times both the physical and mental ability of the human being. This has resulted in freeing the rural sections of the need of great numbers of people, formerly required to produce the food, clothing, and, in a large measure, the shelter of the people of our country and, at the same time, has called into the cities and industrial centers great populations engaged in industrial, commercial, and mercantile pursuits. Then, again, mechanical inventions have so intensified the output of the man engaged in industry and business that, more and more, an increasing number of hours in the day and in the week have been left to him for recreational or other uses, apart from the time devoted to his productive labor. This has brought into this country the problem of the idle time of people. Then, again, by our manner and mode of living in cities, whereby great populations have been crowded into small areas of land, the open space has disappeared, the yards and the grounds surrounding the individual homes have now been devoted to areas occupied by great apartment houses, so that the out-of-doors exercise and recreation, formerly afforded in the large yard, where the children played and the adults worked in gardens, has now changed.

Society has recognized an ever-increasing need for public reservations, or parks, devoted to the recreational uses of the people. The advent of the automobile, at a price well within the means of almost every family, has increased the urge to get out into the country and has stimulated the movement looking to the establishment of metropolitan park systems and the creation of State and National Parks. This need is being met in

many ways. Cities are reaching over and taking, as part of their park systems, country areas beyond the limits of their political boundaries. Metropolitan areas are being organized and given some form of political government which permits this expansion in park areas. States, under a separate department, created under the administrative head, or through conservancy commissions, are establishing State systems of parks. State Forests are being opened that the recreational requirements of the people may be supplied. In fact, conservationists and foresters now admit that the recreational uses of our forests are almost, if not as important to the welfare of the people as are the timber resources within them.

One of the big problems before America today is the proper use of what might be known as the idle time of its people. If this time is devoted to pursuits tending to build up the moral, mental, and physical fiber of the people, America is safe, but if this idle time is frittered away in pursuits tending to break down the moral fiber, to weaken the mentality, and to soften and weaken the physical fiber of our people, then America will go the way of other races and other civilizations which have decayed. One of the strongest forces possible for the maintenance of the virility and stamina of our people lies through the proper use of these great outdoor recreational areas. Nothing can be of more importance socially than that.

Engineers and city-planning experts are giving increasing attention to the planning of the growth of urban and suburban territories. City planning, as I see it, is but an allocation of land to the best uses of the people. Every State, regional, county or city plan, properly devised, will give consideration to appropriate recreational areas. In such consideration, the natural beauty spots will be set aside as public parks, those areas which, in their natural condition, are pleasing to the eye and beneficial to the public, but by reason of the rough contour are poorly adapted for residential development or for industrial use, but, when set aside and preserved for park purposes, with appropriate restrictions upon adjacent property, tending to make its use compatible to the park, stabilize the land values of the community and add immensely to these values. So, parks contribute materially to the economic wealth of the community.

This movement is but an extension of the policy of con-

serving our natural resources. Not so long ago we were inclined to consider natural resources as those found in nature which might be converted into commodities and sold on the marts of trade. The sound conservationist today recognizes the conservation of our natural resources as the conservation and use of anything found in nature which contributes to the well-being of mankind. In such a category very properly falls the preservation and use of these wild and natural park lands adjacent to urban populations, and surely do they contribute to the well-being of our ever-increasing urban populations when properly preserved and administered as public parks. Such has been the viewpoint we have here in Cleveland in establishing our metropolitan park system which, with its connecting parks and boulevards, forms a circular system around three sides of our metropolitan area, located approximately 12 to 15 miles from the center of the city, with appropriate connections to the city park system, and embracing, when completed, approximately 20,000 acres of land.

This work is being administered by a Board of three members, appointed by the Probate Court, serving without compensation, but under bond, and immediately removed by the Court for malfeasance or misfeasance in office. Park districts in Ohio are neither county nor municipal but are distinct, separate political subdivisions of the State, and are just as large as the people of the district desire them to be, and may, from time to time, be enlarged by annexations, instigated by a petition of the people within the territory proposed to be annexed, so that, as our large industrial and commercial centers become the social and economic centers of an ever-expanding territory going beyond their political boundaries, and even beyond the county in which they may be situated, the park district may be expanded to include the ever-expanding territory of which the city is the social center.

The Preservation of Small Streams

By JAY DOWNER, Chief Engineer Westchester County Park Commission.
(From an address delivered at the Seventh Annual Meeting, National Conference on State Parks, Palisades Interstate Park, 1927.)

ON A recent visit to the United States, J. Ramsey MacDonald, British Premier, went to Concord, Mass., to revive memories of a visit there with his bride about thirty years ago. What he most desired to see again was the little river that flows through the town. The man who had passed through the whirlpool of British Empire post-war politics is typical of many who turn from the stress and burden of their worldly affairs to find refreshment in the quiet contemplation of a small stream running between green banks and overhanging trees.

And, yet, in the building of cities, the small stream or water-course is usually neglected or allowed to become a nuisance instead of being conserved and utilized as one of the most valuable and attractive features of any city plan. Too often it is obliterated completely by a garbage dump or ignominiously consigned to an underground drain.

New York City, the great metropolis, furnishes a striking example of the failure in the earlier periods of its growth to utilize the many small streams that originally were natural features of Manhattan Island. An inlet and, subsequently, a canal ran through what is now Broad Street as far as Exchange Place in the financial district. Maiden Lane derives its name from the fact that it once followed the course of a small stream in which the Dutch girls washed clothes.

The Tombs Prison now occupies the site of what was once the Collect Pond on which Fitch launched his first steamboat. Wreck Brook ran from the Pond to the East River, and its main outlet ran through the Lispenard Swamp to the North River. The fate of the Collect Pond can be conjectured from the fact that so far back as 1805 a committee appointed to examine into its condition reported that it was filled with the bodies of dead animals and was dangerous to public health. Another stream on the North River side was called the Minetta Water, originating in the neighborhood of University Place and

Sixteenth Street. Space does not permit of a complete catalogue, but all the way up the west side and the east side to the Harlem River there were small streams that were filled up as dumps or have disappeared in underground drains.

Profiting by the experiences of the past, the preservation of small streams is one of the basic principles in laying out the Westchester County Park System. The Bronx River flows through Westchester County and the Borough of the Bronx, forming the northerly portion of New York City, and when nuisance conditions developed at intervals along the river a proposal was made to solve the problem by building a large sewer which would obliterate the river from view. One of the arguments advanced in support of this plan was that the objectionable conditions would be disposed of and, at the same time, the river and its margins would be converted into a considerable area of made land. The completed Bronx River Parkway as it stands today, with the natural beauty of the river and its banks restored, is an asset of incomparably greater value for the health and well-being of the people than the same area would have been if utilized for streets and solid blocks of buildings. The Bronx River Parkway provides such a valuable demonstration that there was no question of the wisdom of applying the same principle to other streams in Westchester County. Parks have been laid out along the Hutchinson River valley and some sections of the Mamaroneck River and its small tributary, the Sheldrake River. A portion of the Saw Mill River passes through the industrial and business section of Yonkers, hidden from view in culverts and under buildings. The park program came too late to save that portion of this beautiful stream tributary to the Hudson River, but at the nearest possible point to the industrial district the Saw Mill River Parkway was started and will preserve and protect the greater part of the length of this romantically beautiful stream. Low-lying lands along streams and swampy areas least fitted for human habitation are excellently adapted to park uses. All over Westchester County, cheap lands in swamps, along streams, and small bodies of water have been acquired as the raw material, so to speak, of one of the world's greatest park systems.

The Price of Procrastination

By ALBERT M. TURNER

(From the Report of the Connecticut Park Commission
to the Governor, 1917.)

THE training of a civil engineer emphasizes the need of distinguishing clearly between matters of fact and matters of opinion, but when it comes to constructive work of any sort designed for permanent or future use, facts alone are insufficient, and the engineer, like folks, must rely in part on opinion. He must then further attempt to classify and distinguish between right opinion and wrong opinion, in which, also like folks, he is not uniformly successful. I have read somewhere that a man might not know the way to Athens, and yet, having a right opinion about the matter, would reach that city as surely as if he possessed absolute knowledge. However that may be, it is certainly as true today as when Socrates first uttered it, if he did.

It is today a demonstrated fact that State control is a necessity for the proper development of our highway system; only yesterday that was a matter of opinion, and while opinion must still govern the details of surface and construction, it will tomorrow give way to the recorded facts of past experience. A personal opinion is much more likely to be right if it is based upon facts, and if I now venture to express an opinion, it is proper first to recount some of the more personal facts upon which it is based, that you and others may judge of its rightness.

Thirty years ago I first camped on Lake Washining, the larger of the Twin Lakes, in Salisbury. The island in the middle was entirely wild and open to all. A few farmhouses on the surrounding slopes rather added to the picture, whose background is the Taconic Range, but such a thing as a summer cottage I am unable to recall. Trains stopped at the old picnic-grounds in the midst of a pine forest, and many specials brought hundreds of people there for a single day of boating, bathing, or fishing, with dancing or roller-skating in a large open hall or rink. Now a row of cottages occupies the old camp-site and also the picnic grove, whose transient parties were objectionable to the better class of prospective cottagers and prevented the building development desired. The island has passed through

a whole cycle of development but is now included in a single holding. It may still be looked at but it no longer looks natural, and the strange architectural growths sprouting on the hillsides about the lake are no doubt things of beauty to the individual owners, but they do not fit in the picture, which in its earlier condition was unmatched elsewhere in the whole State.

Twenty-nine years ago, disguised as a Sheff freshman, I journeyed from New Haven to Savin Rock on a pleasant Saturday afternoon. Journeyed is right—it took over an hour, even with bells on the horses, but a car ran every half hour, so a good many people were there—perhaps five hundred of them. There were two or three peanut-stands, several thirst-producers, or relievers, as you prefer, and one wild and wicked merry-go-round. Two years ago I heard a special State Commission, after careful investigation, report to a joint Committee of the Assembly on the condition at Savin Rock. The Commission recommended that about 40 acres of new land be formed by filling in some of the adjacent portions of Long Island Sound, and estimated that the usual crowd of 40,000 could thus be increased to 60,000 without any greater average discomfort. It may be seen, since I omit the estimated cost, that I am not in the least assailing that plan; I am trying merely to show in a few words the desperate character of the problem at Savin Rock, which is still unsolved.

In 1892 I entered an engineering office in New Haven, and for thirteen years we feverishly planned and built trolley lines and bits of "State road," and watched the holiday crowds grow. In those early days we occasionally saw on the streets of New Haven a queer-looking sort of high-seated buggy, proceeding without a horse, and the thing that still sticks in my mind is the peculiar look on the faces of the occupants. And the reason that look sticks is because I now have to wear it myself whenever I need to cross one of those same streets. Since that time the State has expended ten to twelve millions connecting up those bits of "State road," and we are not through yet.

In 1905 I got a little sleepy and backed off into a quiet spot for a nap. So, being either too busy or too sleepy, like most of the rest, I failed to pay much attention to the matter of State Parks until early in 1914. Then I took a walk along the Connecticut shore, rubbed my eyes, and cogitated, or at least made the

attempt. I began to hear testimony from others, who, like myself, "used to" go clam-digging, picnicking, or camping, along the shore, on the river, or among the lakes and mountains, but had been driven out from this or that familiar spot all over the State. I found whole lakes and mountain-tops in the possession of individuals who had bought and paid for them, and could enjoy them only by excluding everybody else. I found the shore of Long Island Sound an almost endless row of individual vagaries, nondescript caricatures of habitations, alternating with miles of sea-walls, land-walls, and hedges, behind which towered huge piles of granite, brick, or concrete, which I judged also to be habitations, though the casual democratic eye might frequently conclude otherwise.

I tried to imagine the changes of the next thirty years, and still future thirties, and very gradually I began to perceive that natural scenic beauty and the unrestricted private ownership of land are things apart, and quite incompatible. That is, the small landowner fairly clogs the landscape with his wooden dreams, and the big one walls it up.

Then I turned to the libraries and halls of record and discovered that while I had been working or sleeping somebody had been really thinking; that up in Massachusetts they have spent about twenty millions in providing samples of natural beauty for everybody; over in New York, the Palisades Park alone now comprises 26,000 acres and the State Forests in the Catskills and the Adirondacks cover 1,500,000 acres, half the size of our State. Enough? No, the people of New York State on November 7, 1916, voted to issue bonds to the amount of seven and a half millions to extend the State Forests, and two and a half millions to extend the Palisades Park. This affirmative vote secures to the Palisades Park also private subscriptions amounting to two and a half millions more, making a total of twelve and a half millions this year, and over thirty millions devoted to State Parks and Forests in New York State.

Lining up these facts and sighting ahead over their tops, I have formed the personal opinion that tomorrow will see State Parks in Connecticut as necessary as State highways are today. And, remember, that which is only personal opinion in Connecticut is already demonstrated fact in Massachusetts and New York.

Whether that opinion is right, I cannot say, but if it is, how much longer ought we in Connecticut to continue the policy of watchful waiting?

We have formed the habit, in the "Land of Steady Habits," of sleeping peacefully for nineteen months out of the twenty-four, presumably in the interests of economy. We are now yawning and stretching, preparing to get up and take a quick look around, distribute the accumulated savings of the nineteen months just passed, and sink back into restful slumber, secure in the conviction that we cannot possibly appropriate as much in five months as we might be tempted to in ten. Is that really the Connecticut ideal of economy?

It is true that we have always got along somehow without these new-fangled notions; it is true that we still have "plenty of wild land in Connecticut"; it is true that many other matters are pressing, and perhaps more immediately necessary. Is it not also true that we are merely putting off the evil day, shirking our plain duty to the future, and doubling the ultimate cost of a necessary and inevitable work?

One other fact deserves mention here. The State Parks have already been likened somewhat to the State highways, but one important difference exists which should not be overlooked. Engineers have long talked and dreamed of a "permanent way," but with the traffic changes which have taken place and those which may yet occur, the permanent way, in a literal sense, is still a dream. We have not yet, with the millions expended, been able to build any such, and the maintenance of our best attempts runs into large figures. On the other hand, a wise selection of sites for park purposes, and their careful acquisition by purchase, constitutes an investment by the State which is unparalleled in permanence, and which nothing short of national disaster can substantially impair. So long as the State of Connecticut survives the clash of human progress, and perhaps even after that, the lands now or to be purchased will increase in value rather than the contrary. They will never wear out, and when nature goes out of fashion, mankind will be obsolete.

We have paid with bond issues for improvements which are not and cannot yet be permanent, and we are trying to solve the park problem with the remnants of current revenues. Is this the Connecticut ideal of financial propriety?

Legislation

By BEATRICE WARD NELSON

(From "State Recreation, Parks, Forests, and Game Preserves," published by the National Conference on State Parks, 1928.)

IN THE early stages of State Park, Forest and Game development, the legislation enacted for the creation and development of these areas varied considerably. Today the laws regarding State Forests and Game Preserves have become more or less standardized, unquestionably due to the fact that these phases of State development have been in existence for so many years. Much variety still exists in the method of creation, administration, and development of State Parks.

In all but one or two of the States, game work is under either a fish and game commission or a division of fish and game in a department of conservation. In other words, this work is administered by an authority created specifically for that work. The proceeds from hunting and fishing licenses, fines for the violation of game laws, and income from other sources are invariably deposited in a special fund established for that purpose. In a few of the States the commissioner has authority to draw on this fund, but in the majority of the States the amount to be utilized is appropriated from the conservation fund by the legislature. The majority of the States have authority to accept gifts of land for game preserves, and also to purchase areas for game preserves and for public shooting-grounds. The recreational use of the lands in the game preserves is becoming increasingly popular, and it is probable that before many years the larger preserves will have areas set aside for recreation. In several instances, for example Missouri and Kansas, a certain percentage of the proceeds of the game fund may by law be devoted to the acquisition of State Parks. In Nebraska and Illinois the same method will be followed in the acquisition of recreational areas, and Illinois will submit a bond issue for \$20,000,000 to the legislature which will be used for the purchase of game preserves.*

State Forests are all administered by a division of forestry under a department of conservation, a State Forest commission and State forester, and in one instance, by a State board of

*Defeated. A similar proposal, but for \$14,000,000, will be passed on by voters in November, 1930.

agriculture. This uniformity in administration is probably more prevalent because the primary purpose in the preservation of forests is economic. In addition to this the recognition of the potential recreational value of State Forests has led to the broadening of laws governing such areas to include recreational development. In a few of the States the recreational aspect of the State Forests was developed from the beginning, due to the vision of far-sighted officials.

The laws governing State Parks are quite varied in scope. These areas are under many different forms of administration, varying from such simple methods as the State department of conservation to many park commissions, as in Massachusetts. In New York the parks were formerly administered by separate commissions, but in the past few years these commissions have been centered in a State Council of Parks. During the past two years, this Council has been placed under the administration of the Department of Conservation, retaining its membership of regional commissions. In the States where the State Park development has reached the highest stage there is a tendency toward the centralization of conservation, recreation and allied interests in one department.

One of the first problems undertaken by the National Conference on State Parks after its creation was the study of a model state park law. A committee consisting of Everett L. Millard, of Chicago, Chairman; Judge Asa Owens, of Wisconsin; E. W. Allen, of Washington; Chauncey J. Hamlin, of New York, and Charles G. Sauers, of Indiana, was appointed to study such a law and report to the 1922 national meeting of the organization. After a diligent study of the entire United States, the committee recommended that because of the vastly different park requirements of the States, due to their geography, population, and size, it was inadvisable to advocate a uniform State Park law. It did recommend some uniform ideas derived from the experience of several of the States. It recommended that State Parks be administered by a State Board of Park Commissioners which would have the care, charge, control, supervision and management of all parks acquired. It was thought advisable to permit such a commission to make all necessary rules and regulations, to construct and maintain the necessary roads, walks, paths and bridges, to grant concessions upon a rental or fee percentage basis, to acquire by donation, purchase or lease titles

to tracts of land, to have authority of condemnation under the eminent domain laws of the State and to make a survey of the State for areas which should be added to the system. The committee also recommended that the commissioners composing the board serve without pay, since such a board is usually non-political. It also provided in the model law for coöperation between the United States Government, counties or cities, and the State officials in park or parkway programs. As an alternate, a bipartisan board with a salaried director was suggested.

Since this law was proposed the tendency toward centralization of parks, forests, and game work under a department of conservation has developed. The simpler form of administration seems to be entirely adequate for a number of years in States where there is less demand for outdoor recreation, due to smaller population. Unquestionably the department of conservation tends toward greater coöperation between these three phases of outdoor activity.

The authority of condemnation is most necessary for a park board to have. It enables the State to preserve outstanding scenic areas which it many times cannot otherwise obtain. Its value has been demonstrated during the past few years in Kentucky. Had the Kentucky State Park Board had authority to condemn land for State Park purposes, the Cumberland Falls of Kentucky would now be preserved from power development, and one of the few remaining waterfalls in the United States would remain in its original state.* In New York, the park authorities have the right of condemnation, and entry and appropriation. Under the New York laws, when land is condemned upon notice to the owners, title vests immediately in the State or other public authorities. A commission of three appointed by a judge then decides on the amount of the award. As applied to the majority of the State Park commissions outside New York, condemnation simply means that a judge may be asked to appoint a commission to fix the value of certain lands and the title to these lands does not vest in the State until after the award is made and accepted by the State authorities. In the case of entry and appropriation, the State enters and takes a parcel of land. The owner applies to the court of claims, which fixes the award, the title being vested in the State after

*The 1930 Kentucky legislature conferred condemnation authority on the Kentucky State Park Board.

the entry and appropriation papers have been filed with the Secretary of State and served on the owners. The present authorities in New York prefer the method of entry and appropriation, but this is considered rather drastic in the majority of the States. This method, however, was used successfully in acquiring land for the Forest Preserves of New York for many years, and during the last two years has been used by the State Council of Parks in acquiring land held by owners who did not desire State Park development in their vicinity or held by real-estate speculators. It is generally agreed that the right of eminent domain should be exercised only when absolutely necessary, but the authority to exercise it should be on the statute books if the State is to acquire park lands under a reasonable cost.

In a number of the States, revenues from State Parks are retained, under authority granted by the legislature, and applied to the development of the parks created, and to their enlargement, and in some instances to the acquisition of additional parks. Practically every game department works under such a law, though in some instances the money in the game fund must be appropriated by the legislature before it can be used. The retention of the revenues in a revolving fund has been a great advantage, for example, in Connecticut* and Indiana where goodly revenues have been developed. In some of the States, however, the retaining of revenues from State properties in a revolving fund has been prohibited by statutory provisions.

A direct tax levy is the method of acquisition used in Indiana, a State where bond issues are prohibited by the constitution. This method was used to raise funds to secure land for the Sand Dunes Park on Lake Michigan.

State Parks in a number of the States have been acquired from the proceeds of bond issues. This method is not approved in some of the States—in others, such as New York and Pennsylvania, it has made possible the securing of hundreds of thousands of acres of land. A number of the State authorities contend there is as much justification for the approval of bond issues for parks and forests as for highways and schools, since they are as essential to the public welfare.

*Abolished by 1929 Connecticut legislature.

Bases for the Selection of State Parks

By FREDERICK LAW OLMSTED
(California State Park Survey, 1929)

THE chief criteria for determining what areas should be included in an "ultimate, comprehensive State park system," . . . appear to be these:

1. They should be sufficiently distinctive and notable to interest people from comparatively distant parts of the State to visit and use them, not merely good enough to attract people from the region in which they are situated and merely because of the absence of more interesting areas within easy reach. Also they should, in general, be situated beyond the limits of urban and suburban communities which have sufficient population and wealth to assume the obligation of providing parks that would be mainly serviceable for the daily use of their own citizens, even though of incidental value to people of distant communities.

2. They should be characterized by scenic and recreational resources of kinds which are unlikely to be reasonably well conserved and made available for enjoyment under private ownership, or which under private ownership are likely to be so far monopolized as to make it seriously difficult or impossible for the ordinary citizen to secure enjoyment of them, except at a cost in time and money disproportionate to the cost of providing that enjoyment through State Parks.

3. They should be as nearly as possible just sufficient in number and extent and character to meet the prospective demands of the people for the kinds of enjoyment which they can provide, and which cannot or will not be supplied by such other means as local parks, National Parks and Forests, and the use of scenic highways. The gauging of that demand in advance is very difficult, but there is every indication that it will be much greater than can be provided for under the present bond issue.*

4. They should be geographically distributed with a view to securing a wide and representative variety of types for the

*The \$6,000,000 State Park bond issue of 1928, to be matched, dollar for dollar, by contributions from other sources.

State as a whole, and at the same time making a reasonable assortment of them equitably accessible to the people in each part of the State. "Equitably accessible" in respect to State Parks obviously does not mean that if one community has a State Park within half an hour's ride every other community should have one equally near. A State Park system cannot be laid out on that scale of accessibility. It means more nearly that a fair assortment of State Parks should be within the reach of a day's travel by automobile of any considerable body of population.

Desert Types. Certain desert areas have a distinctive and subtle charm, in part dependent on spaciousness, solitude, and escape from the evidence of human control and manipulation of the earth, a charm of constantly growing value as the rest of the earth becomes more completely dominated by man's activities. This quality is a very vulnerable one. Its bloom is easily destroyed by comparatively slight changes made by man. The very conditions which make a desert what it is leave every man-made scar upon its surface so completely unsoftened by natural processes as to produce a rapidly cumulative deterioration of its precious wildness.

The desert is, in general, worth so little for any other purpose than occasional enjoyment of its untamed character, and so much of it in southeastern California is within easy reach by automobile of so large a population that it seems a clear duty of the State to acquire and preserve inviolate several desert areas large enough for future generations to enjoy in perfection the essential desert qualities. As in the case of the ancient redwood forests, only such public action by the present generation on an adequate scale can preserve this heritage for the people of centuries to come. Nowhere else are casual thoughtless human changes in the landscape so irreparable, and nowhere else is it so important to control and completely protect wide areas.

Areas of other special interest, historic, scientific and otherwise. The places of historic interest brought to attention by the survey are broadly of two sorts: Those marked by buildings or other objects of intrinsic architectural or picturesque interest having historic associations, and those which have historic interest, merely because of some event which is associated with the site but which left no substantial physical reminder.



McCurry Photo

A typical Southern California desert scene

In general, I believe that the latter can best be dealt with by the erection of suitable tablets or markers, with or without public acquirement of land for a setting; and except when such a site is worthy for other reasons of being made into a State Park, its acquirement and administration hardly seems to be an appropriate function of the State Park Commission.

In some cases of historic objects, such as buildings, the case is different. There is sometimes urgent need of action to protect them from disintegration or vandalism, and where they are of State-wide interest, and local or private initiative is unlikely to take the necessary steps for their preservation, the State ought to do so. Here, again, if the prime object which the State has in view, namely, the preservation and respectful treatment of the historic object and reasonable opportunity for the public to see it, can be satisfactorily accomplished by agreement with the owner or owners, without the State's taking title to the property and assuming the entire burden of caring for and protecting a small isolated unit, this course will often be the wiser. But there are some cases where the only practicable course is for the State to take title to the land, to repair and protect the object, give it a suitable setting, and permanently safeguard it, all of which involves considerable annual expense without much possibility of securing any corresponding revenue in any dignified and legitimate way.

Much the same may be said of certain objects of archeological interest, remains of Indian culture now neglected and seriously subject to destruction by thoughtless vandalism, and to various isolated objects of special scientific interest—geological, botanical, zoölogic and otherwise.

The Study and Selection of Sites for State Parks

By JAMES L. GREENLEAF

(Address delivered at the Fifth Annual Meeting, National Conference on State Parks, Skyland, Va., 1925.)

IN OUR National Forests, National Parks, and State Parks alike, the fundamental purpose is preservation of things for the present and future good of the people. Conservation is the basic function of them all.

In the forestry service this fundamental purpose takes the twofold form of acquiring forest tracts and cut-over lands to be replanted, and also the active preservation and re-creation of the timber-growth. This presupposes at the same time business-like, scientific use. Conservation of the forests does not mean idleness of their timber resources. It does mean protection against fire, infection, grazing, and exploitation by grasping business interest.

Conservation as applied both to the National Parks and to the State Park movement means primarily the acquiring and preserving for the public of scenic regions of importance before their exploitation by activities which destroy their scenic value or make their taking over impossible.

There are important phases of development and administration, many of them intensely practical, which call for the best services of highly trained men. I do not propose to dwell upon the questions of a legal and political nature, on the construction problems or on the administrative methods involved. In many respects these questions differ greatly in the cases of National Forests, of National Parks, and of State Parks. But, returning to purposes and ruling incentives, there is one motive of great present force in our national life that is common to all three in its influence upon their development. I refer to the important outdoor recreation idea which is gripping the public mind. The people of this country are so prone to ride a good horse to death that some of the thoughtful are apprehensive lest in the booming of the recreation idea the fundamental and primary purposes shall be neglected, if not forgotten. Those admirable men and women initiating our forest reserves and our

park activities, and the worthy, capable men administering them, are but human; they find it difficult to get the funds necessary for action unless they fall in with the popular idea; they are influenced by the popular movement. I ask the leaders if this is not true. I ask them if they are not carried on a current which is drifting us from our moorings of fundamental and primary purpose. Are we not tending to look upon recreation in its popular sense as the all-important reason for our activities? Is it not well for the leaders to seriously consider this?

Let us confine our thoughts now to the bearings of this recreation urge upon conservation as I have already defined it. Moreover, after remarking that its influence on our National Forest and National Park activities is not one whit less significant, I turn to consider State Parks only in what follows. The general current of present-day thought over State Parks is manifest from our activities—in fact, is shown by the nature of these State Park conventions themselves. How to awaken interest and arouse the demand in certain States; how to provide for the entertainment and handling of the public, for parking spaces and motor camp-grounds, water-supply and sanitation, roads, drainage, methods of administration—these and the like problems take our attention. Far be it from me to minimize their importance, but I would fain draw you to consider especially the primary motive of the State Park movement, namely, the conservation of regions of scenic importance.

I speak especially of the preservation of scenery, not of its development, for the latter is a dangerous term to use. Municipal parks may well be “developed,” but it is an exceedingly delicate matter to undertake the development of natural scenery. Except in very restricted places of special character or under special circumstances, beware the hand of the improver on a scene of natural beauty. But the preservation of scenery is another matter. We need not analyze it, only pause to state that its symbol is not the lawn-mower.

Now, I realize that the discussion of scenery and its value is usually not attractive to the typical, active, busy man of affairs. His tendency is to relegate it to the list of minor matters. In this he is but the product of his times. He and his public feel that scenery is one of the cheapest things on earth—the world is plastered with it—there can never be any lack of

scenery. With him, if, for instance, it will save money to place a building or to build a road where it mars a view, the scenery may go hang; with him, the instinctive attitude is, Let us, above all, be common-sense, practical men. The transcendent thing with the typical man of affairs is economy, though to get it we ruin a hillside or valley scene for all time. Such is the instinctive attitude of business efficiency.

Mr. D. Everett Waid, President of the American Institute of Architects, in a recent address described the surroundings of the typical American town as simply hideous, and they are produced by just this disregard for scenic values and propriety. If we use our eyes and pause to think, we all know that public welfare has no right recognized by law to prevent devastation of scenery as such. Railroads gash into the hillside; factories crowd into the fairest river valley. He who ventures to raise his voice in protest is brushed aside as impractical if not a foolish crank. The sacred right of the dollar to make another dollar must not be impeded. Whether in country district or in urban, the same standards rule. I ask you, what will be left of scenery for the time when our population has doubled unless the leaders—you men and women here before me—hark firmly back to the simple, fundamental, primary purpose of State Parks, the preservation of scenery for the sheer value of it? This is a duty we owe, not only to the present, but to posterity. It is not easy to stem the popular drift. Results will not come easily until the public as a whole develops an art sense, but are we drifters or are we working for public good? In short, are we leaders or are we not? I urge on you, the practical men of affairs (the women need no urging), on you who pride yourselves upon putting things through, on the men justly proud of their technical knowledge, not to thrust the gentle spirit of beauty to the sidelines. I urge on you not to be ashamed to be called idealists. Rather is there pressing need to carry forward the ideal. Would it were blazoned on the banner of every park movement, and that banner carried by the men of affairs! There, I earnestly assert, lies your first duty, you the State Park promoter, creator, superintendent.

Perhaps no class of professionals feels this attitude toward the preservation of scenery more than the class in which I belong, the landscape architects. In the landscape architect the

feeling for beauty of scenery is or ought to be instinctive; his leading motive is composition and design. To him, roads, for example, are a means to an end, not the end itself. For him, economy in construction and the reasonable use of money is important, but economy is not the beginning and end of all things; economy which destroys important scenery is waste. May I get this message to the young engineer engaged in park construction? My early training was in engineering, and I know the enthusiasm of the young engineer for the tools of his craft. I say to him, distinguish between the means and the purpose in view. Scientific accuracy in the layout of tangents and curves, the meticulous balancing of cuts and fills he delights in, but the vital point is the artistry with which the construction work is blended into the landscape composition as a whole. And to the man of more experience as a practical director of work I say, economize labor, materials, and time ruthlessly, slash a road into the hillside and leave great scars so as to do economical hillside grading, or cheaply get material for a fill, locate spoil banks for the shortest haul, place contracts with the lowest cost and on least time—work in this spirit and you are doing State Parks and the public a positive disservice. There are many examples of ill-considered work to our discredit. I could show you a drive on an ugly embankment carried in a long tangent down the meadow of one of the most beautiful park valleys on the continent, where so easily, with the exercise of a little art sense and imagination, the drive might have been wound along the edge of the woodland, here retreating into the shade and there advancing to disclose a wonderful view.

I am told by Stephen T. Mather, the sympathetic friend of scenic conservation, of a great sugar pine on the Pacific Coast, left standing but sliced away to the necessary height for a third or more of its diameter because, forsooth, the alignment of the side line of a certain scenic roadway cut into it. Crass stupidity like that amounts almost to a crime and seems incredible, yet just such things happen where no idealism is.

To face the shield about for the moment, let us clearly recognize that never should we forget business considerations while advocating idealism and first regard for scenery. John Ihlder, manager of the Civic Development Department of the National Chamber of Commerce, put the matter rather well in

the new quarterly called "City Planning" in reply to someone who exclaimed that the beauty that was Greece and the glory that was Rome were not founded upon financial calculations. Wrote Mr. Ihlder, "The business man's view is that they were, for he knows that beauty and glory seldom grow of bankruptcy." Those planning for State Parks do not wander vaguely about over the face of the land and when they discover any distinctive and beautiful scenery say, "Go to! here we will have a State Park." A wise weighing of many factors besides the quality of scenery is called for. Legal difficulties in acquiring land and its cost, the present and probable future importance of the region for other than park purposes, possible interference with important traffic lines, accessibility for the greater number, a rational distribution of park area throughout this and bordering States—these and other practical considerations weigh, and so they should. But, when all is said and done and the final argument made for hard-headed business sense in dealing with the State Park question, the fact remains that the conservation of scenery for the present and for the future that the public may benefit is all important.

And now let us look more keenly into the present-day thought on State Parks. It is worth while to analyze the impulse which brings us to this conference. The energetic Governor of Texas crystallized an idea into six words, and someone had the inspiration to phrase it as a slogan: "A State Park every hundred miles." The general feeling is voiced by the expression, "That's the talk!" And it is good. I am not questioning it; but what is the underlying impulse? The real force behind the movement is not the preservation of scenery but the urge of motor travel. The real activity is to provide motor parking and camping, but this is not the State Park idea in origin or in truth. I do not say such activity is wrong in itself. Whether wrong or right, it is forced upon us by the tremendous growth of motor travel. Think for a moment of the motor highway of the future: the main lines will have separate roads for trucking and for travel,—already this is planned for certain congested regions; the automobile will travel on scientific roads, thoroughfares in a very literal sense—low degree of curvature, banked curves, no grade crossings, side ramps at intervals for local travel to enter the speedway, of course no objection to adornment on the

side but speed and safety the ruling thought. Then, motor camps with all conceivable up-to-dateness every hundred miles.

Is it not true that in the last analysis this is the mainspring of our purpose? Let us be quite clear-sighted and candid about it. We should not confuse the motor road and motor camp movement with the State Park movement. They are related but not identical. Frank recognition of this will aid to sound progress. Speaking broadly, that we may make the point distinct, motor camps, which at the best are not inspiring and at the worst are simply horrid, should not be placed where they detract from charm of scenery. It is always possible to locate motor camping-grounds so that they do not detract. It is not possible to uphold scenic values thus violated. There is no fear but that, even in the far future, should it be necessary in order to meet a demand, whole farms can be condemned for motor park purposes in places not harmful to fine scenery. There is, on the other hand, grave danger that in the relatively near future our beauty-spots will be destroyed for all time to come unless they are taken over and cherished. Let us have motor camps in abundance, every hundred miles if you choose, even though there be a suggestion if not a hope that a possible overmuch of motoring enthusiasm may yet go the way of bicycling, roller-skating, and ping-pong. But, as said the far-sighted superintendent of one of our noted National Parks, in substance in a talk with me, "The greatest danger to our National Parks is their vulgarizing." That is a valuable term to keep in mind. We must guard against the "vulgarizing" of our State Parks. This is particularly the hazard confronting the design and management of all State Parks near populous regions, Montauk for instance.

To again emphasize these points: deliberately plan to place the motor parks outside the State Parks; hold as the password of humanity into our State Parks, "re-creation," not "recreation" in its popular meaning; keep scenery inviolate, lead the people to approach it with respect, not desecrate it; try to instill into the American public the finer sensibility of the Japanese for scenery and the veneration of the red Indian for the sacred mountain and the spirit lake. The task will not be over until the feeling for art and beauty is the feeling of the people.

In conclusion, contemplate with me our accepted slogan,

"A State Park every hundred miles." I would not criticise it but press for its right application. For this reason I had rather see it rendered thus: "A State Park wherever Nature smiles; a motor camp every hundred miles."

We are told that in the pageantry of ancient times an emperor rode to his coronation in triumphal car, horse and soldiery without number, trumpets blaring, splendid banners flying, the priestly order in procession, maidens strewing the way with flowers, the populace raising shouts of adulation and then kneeling in awe and veneration, the entire gorgeous ceremony lifting him to kinship with the gods. But in the chariot, directly behind the emperor, stood a slave admonishing at intervals in these words: "Remember thou also art a man." A mentor is needed behind many a motor tourist to say, "Remember you do not own the earth."

In entire good nature and yet in gentle irony withal may we not with parallel intent write our slogan with this mentor behind it thus:

A STATE PARK EVERY HUNDRED MILES
(A filling station every ten miles)

Imagination will decide whether the filling be of gasoline or "hot dog."

We need a mentor to admonish us. Where are we driving in our State Park movement? If supplying facilities to the motor tourist, by all means do it effectively under the right name and in its proper place. If creating State Parks where, for the future as well as for the present, native scenery shall be preserved, where breathing-space shall be secure under conditions which invite the soul to renewed energy on a loftier plane, then let us acquire the beauty-spots before it is too late, and acquiring, cherish with clear-eyed purpose.

Planning a System of State Parks for Connecticut

By ALBERT M. TURNER

(An extract from the Field Secretary's report in the Report of the State Park Commission to the General Assembly of Connecticut, 1914.)

THE first consideration is undoubtedly that of natural fitness, suitability, scenic beauty; something which it is exceedingly hard to define, and perhaps even harder to agree upon. A field of corn may be a most beautiful sight to the man who planted it, or a barn full of hay after he has "got it in." To most of us who have been born and brought up in the country, there is no place quite comparable to that birthplace. In the broadest sense, all nature is beautiful, but after all there are degrees of beauty, and many will agree on certain features.

The presence of water, either the sea, a lake, or a running stream, is so universally acknowledged as an element of beautiful landscape that it must be considered indispensable for any large reservation, and for other obvious reasons very desirable for all reservations. That the area should be largely wooded will also most likely be granted, but as trees can be added in time, their present existence is not really essential. Rough broken surfaces multiply greatly the apparent area, and are, fortunately, very desirable, for, as a rule, they are least valuable for other purposes and can more readily be acquired.

But such general considerations avail little in making choice between the hundreds of possible sites in the State where all these features are present in a greater or less degree. A study of the State in the summer months, however, brings out strongly the places where people are really gathering for their outings, and some places where they have so gathered for generations. Of such places, those which have been frequented longest seem to present in general the greater natural attraction; the more recent being apparently any place at all by the water. As individuals have been influenced by other and quite different considerations, so must the State, and the reservations cannot be selected solely for their degree of scenic beauty.

But the basic importance of the topography cannot be

questioned when it is remembered that nothing else is permanent, and that no possible future "treatment" can do more than palliate and soften somewhat any original errors of selection in this respect. It also follows that where a site offers unusual or unique features, which are not duplicated or perhaps even approached elsewhere in the State, the strongest possible reason exists for including it in any proposed system, even in the face of serious obstacles.

Second, closely allied to this is the consideration of historical or traditional association, not necessarily of battle-grounds or heroic actions, but of any memorable event or personality connected with the early days of our history. We are so rich in such places that we have to choose carefully, but must give due consideration to this other basic element, which cannot now be added to. We can still make history, but it is slow work to make it two hundred years old. Reservations selected particularly for such reasons will probably be of relatively small areas, and will not materially influence the planning of the larger and perhaps more necessary areas. Many such sites will perhaps only be discovered after the plans of the Commission are partially developed and a more general interest in the work is aroused.

Third, distribution, with respect to particular areas of the State, or with respect to centers of population. This element, at first thought important, and certainly calling for careful consideration, must be held entirely secondary in its nature since, with respect to areas, Nature has paid scant attention to town or county lines, and with respect to centers of population, they are subject to many changes with changing conditions, and these changes are impossible to foresee. We are only just realizing the revolutionary changes following the beginning of mechanical propulsion on our highways, and to foresee all the results of even the next ten years in this direction alone is beyond our powers. Countless generations, from Dædalus to Darius Green, have dreamed and failed where our generation has accomplished. What we now lack chiefly is imagination. And yet, since the time of Isaiah, the earth itself, and the ties that bind us to it, remain the same. Plainly, for our purposes, the only boundaries to be kept in mind are the natural ones of topography and geology within the limits of the State.

It is only reasonable, however, to avoid the immediate neighborhood of the larger cities and their surrounding zones of probable growth. Aside from the extra cost, the State Park is intended for outings of a full day or more, and a ride of one or two hours only adds to the pleasure of the day. It is undesirable to have the natural park surrounded by rows of houses, and the land values near the cities are in most cases prohibitive. This field should therefore be left, as in the past, for each city to fill as its needs arise. The aim is not to add to the number of city parks, but to satisfy an entirely different but growing need.

Fourth, accessibility, a factor closely allied to distribution, in so far as it has to do with centers of population, must still receive some special consideration for quite a different reason. It is not felt to be desirable that all reservations should be made equally accessible in the sense, for instance, that all should be located on a trolley line, or even that a trolley line should be projected where one is now lacking. There should be places provided especially attractive to automobile parties, and others where the man on foot can get away from them. There should be lakes where motor-boats, including some for the public, are common and cheap, and there should be lakes where motor-boats are taboo, and where the shriek of the steam whistle and the auto horn are at least faint and far.

Even a democratic society includes people of widely varying tastes, and this should be frankly recognized and provision made for all. Varying degrees of accessibility will accomplish this in the simplest and most natural way.

With this in mind, and because of further anticipated improvements in transportation, the factor of accessibility is of relatively very small importance, and can be almost ignored in a system covering the whole State, no part of which is inaccessible to some part of its people. More weight should no doubt attach to this matter in the order of acquisition of the areas selected, as it should be the aim to make the first reservations immediately available to the greatest number of people.

Fifth, withdrawal of land suitable for agriculture, so-called "productive" land. No general rule can be laid down in this respect, except that it should be the aim of the Commission, so far as possible, to select sites of small value for agricultural purposes. In most cases what are usually considered waste

places are best suited for reservations, and would naturally be selected anyway, but this is not true in every instance. It must be remembered that many acres of good farm land have been cut up into building lots, and that this process is going on more rapidly each year. The land along nearly all our water-fronts, both salt and fresh, is already worth much more for summer cottages than it ever could be for agriculture—in some cases a hundred times as much. But water-frontage is extremely desirable in our reservations, and in such cases it is plain that the value for farming purposes can have no bearing on the question.

The fallacy lies in the belief that Connecticut is still, or can again become, an agricultural State. We can never make money by growing corn on land that will bring from \$1,000 to \$10,000 an acre for building lots. It is not by chance that we make clocks for the world and buy our corn from the West.

Sixth, size of the reservations. This must be controlled entirely by circumstances in each individual case. A preference should be given to natural boundaries wherever possible, but the definition of natural boundaries is not an easy matter. The basic idea, perhaps, would be the inclusion of sufficient area to guard against future encroachments of a nature to injure the special beauties of the site. As a rule, it is not difficult to determine in specific cases what this should be. In many instances, however, it will be impracticable to include more than a small portion of such an area, owing to previous development and consequent excessive cost. It should be remembered that the principal use of these reservations will be on holidays when a great many people are free at once, and if at all crowded they will not meet the requirements of the people who are to use them. By comparison with most city parks, they should be large.

Seventh, number of the reservations. This should be limited only by the use which is made of them. In other words, the system should have a natural growth, rather than an arbitrary and artificial design, however wisely planned. It might be considered the ultimate aim to have at least one large reservation within one or two hours' ride of everyone in the State, which would naturally give a choice of two or more to the residents of the densely populated lowland areas. But this will require years rather than months of study, and is not considered

immediately necessary or desirable. The shore-front, on the other hand, is in a critical condition, and there can be little question of the desirability of there acquiring all the larger areas that are still available.

Eighth, availability, in respect to value of lands needed and funds on hand for purchase. This is the final consideration, which should have no weight whatever in comparison with the others mentioned, so far as the planning is concerned, but must in most cases be the determining factor in the order of acquisition of the different sites. At present the Commission can do little more than point out a number of sites which it finds suitable and desirable, leaving all questions of acquisition to the action of the General Assembly or to private good will and interest in the State.

Ninth, proposed rules and regulations for use of the State Parks. While it is not yet necessary to formulate such rules, the general principles involved may properly receive brief attention. The purpose of the Commission should be to make such rules as few and simple as is consistent with the preservation of the public property and individual freedom. In general, that measure of freedom may be permitted which does not interfere with the rights or enjoyment of others, pollute the waters, or injure the forest-growth. This would involve the prohibition of firearms, but not the gathering of nuts, berries, or wild flowers. Fishing might well be encouraged, and the waters of the streams and lakes stocked through the coöperation of the Fish and Game Commission.

The forested areas would come under the direct supervision of the State Forester, and might eventually produce a material revenue from the sale of products, though this would be purely incidental, as the main revenue produced must always be the spiritual and physical benefit to the people who use the parks, a revenue as intangible as the wind and sunshine, and as invaluable.

Finally, each area may be expected to require some special regulations, according to the use made of it. Certain areas should be designated as camping-grounds, preferably free to residents of the State, but with necessary provision for sanitation. Rules governing such areas must be formulated and modified by experience.

Tenth, development and care of reservations. The amount of development work required will depend almost entirely upon the number of those who use the park. It is strongly recommended that for the present all such work be reduced to the least possible amount, and such funds as may be available devoted to the purchase of land. Expensive drives, at least, should not be undertaken or considered except as a future possibility, of which the future must demonstrate the need. Rather should use be made of and plans largely conform to existing highways, of which the State already has ample provision. It is not more highways, but a rest and relief from the highways, that the Commission should provide. To a point of special interest—a spring, a lookout point, or along a rocky gorge—a simple footpath may seem advisable and will cost little to build or maintain.

The larger reservations will probably require a keeper, who should be a practical forester, and whose time will be principally occupied for a considerable period in the improvement of the forest-growth and its protection from the danger of fire.

Such gifts or devises of land as are contemplated in the Act of 1913 should receive suitable recognition by the State, and the Commission should be permitted reasonable latitude in its use of funds for this purpose. No finer memorial to an old family name can be imagined than a gift of imperishable land for the common use of the people, with the State Park Commission constituted a perpetual body for the care of such property.

The memory of the Only and Original Greatest Show on Earth will vanish with the generation that saw it, but who can put a limit to the memory of the man who gave Seaside Park to the people of Bridgeport? There in his armchair, watching the rising and falling tides and the passing of the generations, sits the man who can best answer the question "What is it for?"

What Lands Are Suitable for State Parks?

By WILBUR A. NELSON

(An address delivered before the Conference on Public Land Policies of the Federated Societies on Planning and Parks, 1926.)

WHEN a country gets old enough to have anniversaries, and to look backward over its periods of growth, to take stock of the progress it has made, and to visualize the future, then one realizes that there is no precedent for progress; that public lands are not under just one classification of land. The day has passed when a king can grant to one of his ministers a territory two degrees wide extending westward from the Atlantic as far as land is found. The day is even past when a democratic government can give land bounties to returned soldiers. The day is past when most of the States have any public lands left, and the day has come when we must study seriously the factors which have to do with the utilization and division of all lands, both public and private, into units of suitability.

What are the environmental factors which are fundamental in making an area suitable for a State Park? What is the effect of environmental factors on State Park development?

What are these factors?

What factors are favorable?

1. A population without space to play or for recreation.
2. An unpopulated area.
3. Transportation facilities between populated and unpopulated area.
4. Terrain in unpopulated areas strikingly different from nearest populated area—mountains for the plain dwellers, seashores for the hill citizens, forests for prairie dwellers, desert sands and oases for the forest dweller.

Such will be most appreciated and give most relaxation, rest, and recreation.

These are the general factors, but what are the ideal environmental factors, which part of the surface of the earth should have to make it suitable for a State Park? When should land's ultimate object be the making of a State Park instead of for any other of the basic uses of land?

All land has some particular purpose for which it is best suited and for that purpose it should be used.

We might even be purely materialistic and say, as a member of the Michigan Conservation Commission stated, that when a reforested area is worth more for recreation than for timber-cutting, when the greatest demand by the people for such an area is for camping, such land is best suited for a State Park and should not be used for other purposes.

Without a large population there would be no use for State Parks—with such, it gives the following:

1. A meeting-place under ideal conditions for all people.
2. An educational place.
3. A recreational place.
4. A health center.
5. A weekend resort for all with change of climate, scenery, and people, where millions can go, while only hundreds of thousands go to National Parks.
6. A scenic advertising medium for a State.
7. PARKS FOR ALL.

Therefore, areas should be found with environmental factors which will give all these results.

Such are the general uses of State Parks based on the needs of the people; but these State Park areas must not be confused with night camping-grounds for tourists. They are not just glorified filling stations. They must be areas of best scenic beauty in each State. They should contain natural beauties which have not been altered by man in his quest for the materials needed in this age of mechanical civilization. It is only by holding in reserve these areas that we can perhaps preserve and develop in some of our people a love of beauty, of nature as nature was intended to be. Parks where flowers can be seen in their natural habitat, and not as most of the city dwellers see them in pots and pans. Parks where animals which once populated this country may be seen in a sanctuary, unafraid of the hunter, living lessons in nature-study for all of us, not just for the children.

We must have many such large areas and we must start acquiring many of those which are still worth preserving.

How State Parks Are Acquired

By BEATRICE WARD NELSON

(From "State Recreation, Parks, Forests, and Game Preserves,"
published by the National Conference on State Parks, 1928.)

MANY methods are used in the acquisition of land for State Parks, Forests, and Game Preserves—many different methods. There is great regularity in the acquisition of forest lands and game preserves, great variety in the acquisition of State Parks.

State Forests have been acquired through purchase, in a few instances by gift, occasionally through bond issues, and through the exchange of school lands.

Game Preserves have been set aside principally through the use of receipts of the fish and game work for purchase. In most instances the receipts from fishing and hunting licenses, fines for violations of the game regulations, etc., are set aside in a fish and game fund which is used for the work of the department. Practically all fish and game departments in the various States are self-supporting. Some preserves have been given to the States.

State Parks have been acquired through gift, the proceeds of bond issues, tax levy, exchange of school lands, purchase through legislative appropriations, transfer of Federal lands, and the use of a certain percentage of the fish and game funds.

Large gifts have been made to the park systems of several of the States, notably New York and Michigan. Of Michigan's 64 State Parks, 59 have been donated to the State. The Dodge Brothers alone donated ten areas, most of them near the city of Detroit. It was the belief of this company that through the gift of these areas it was making a contribution to the health and happiness of the people of Detroit. Howard B. Bloomer, of Detroit, at that time chairman of the board of directors of the Dodge Brothers, personally gave four sites to the State. Probably the largest gifts have been made in New York, where contributions for the Palisades Interstate Park total in the millions of dollars. Valuable areas have been donated in other sections of the State. In Texas the State Park Board made a tour of the State several years ago and, as a result of appeals in

various sections, secured the gift of fifty-one areas as State Parks. Many of these areas were unsuitable for park development and have been returned to the county or owners of the land. Twenty-four of the parks were accepted by the State Legislature and will be developed by the building of roads and the construction of camping facilities as funds are available. Practically every State in the Union has received gifts to its State Park system of land or money. In Iowa, many of the State Parks were gifts. Many of the finest areas in the State Park systems of Washington, Wisconsin, and Minnesota were donated to the States, and in Kentucky the entire State Park system was established in this way. Indiana's park system has received many gifts, the latest the contributions of Samuel Insull, the late Judge Gary, and Julius Rosenwald, which made possible the acquisition of the present Sand Dunes State Park.

In many of the States, conservation officials believe there is as much justification for the issuance of bonds for the purchase of park and forest lands as for schools and roads, since such areas are of prime importance to the health and welfare of the people of the State. New York has approved three bond issues for State Park acquisition—one of \$2,500,000 having been approved in 1910; another for \$10,000,000 in 1916; and the last, the \$15,000,000 bond issue of 1924 which, when submitted to the voters, carried by a majority of 986,000. Cook County, in Illinois, passed bond issues of over \$15,000,000 for the acquisition of the Cook County Forest Preserve. New Hampshire's Legislature in 1925 approved a bond issue of \$200,000 for the purchase of Franconia Notch.* California submitted a bond issue of \$6,000,000 to the voters in November, 1928,† while Pennsylvania is voting on a bond issue of \$25,000,000 for State Forest purchase.‡ The California bond issue law carried a provision that funds spent under the bond issue must be matched by an equal sum of private moneys. A bill for the issuance of bonds for park purchase will be submitted to the next Legislature in Rhode Island.§ In Illinois, a bond issue of \$20,000,000 to permit of the establishment of forest, fish, and game preserves and recreational grounds in each county of the State will be

*A purchase since completed by private subscriptions.

†Overwhelmingly approved.

‡Defeated.

§No action.

submitted to the voters at the November election.* This bond issue is particularly interesting since additional taxes will not be levied to pay the interest or retire the bonds but such costs will be met from the receipts of the hunting and fish licenses. In Washington and Connecticut there has been an unsuccessful effort for a number of years to secure the passage of bond issues for the purchase of desirable areas.

In a number of States the issuance of bonds is not approved and several, notably Indiana, have statutory provisions prohibiting such action. When it was necessary to raise funds for the acquisition of the sand-dunes on Lake Michigan, Indiana's Legislature passed a law providing for a tax, distributed over a period of eight years, bringing in approximately a total of \$850,000. This State has been aided by several of its counties issuing bonds, the proceeds from the sale of which then were used to purchase park areas. These parks were turned over to the State Department of Conservation to develop and administer. Three State Parks have been acquired in this manner, made possible by the coöperation of Steuben County, Lawrence County, and jointly of Clay, Greene, and Sullivan counties.

A number of parks and forests in the West have been created through the exchange of scattered school lands for equivalent areas in the National Forests. This was made possible through the coöperation of the United States Forest Service, which was authorized by Congress to make such exchanges. These school sections were granted to all but the original thirteen States. Thus the States were able to bring together large tracts of consolidated forest lands of economic and recreational value. The great Custer State Park in South Dakota is made up partially of lands acquired through exchange, as are some of the State Forests of Montana, Idaho, Oregon, and California. Washington is now negotiating for the exchange of widely scattered school lands for National Forest areas.

A few State Parks have been established through the transfer of land by the Federal Government. Several have been transferred to the State without cost, such as the Presque Isle State Park in Pennsylvania; Fort Mackinac, Michigan; Fort Macon, North Carolina; and Fire Island, New York. To make any transfer of Federal property, an act of Congress was necessary

*Defeated.

until 1927. Now, under authority of the Recreational Act, passed in 1927, vacant public land may be secured for \$1.25 an acre on application of the authorities of the State in which it is located to the Secretary of the Interior, subject, of course, to his approval of such transfer. The Joint Committee on Recreational Survey of Federal Lands compiled a list of the unentered public lands throughout the United States. The committee's study of this question showed that some of these lands, particularly in Utah and California, are well suited for park uses. A number of surplus lighthouse properties were acquired by the States without cost, among them properties in Oceana and Mason counties, Michigan. An attempt was made to secure several War Department properties declared surplus properties, for park uses, but the prices asked by the War Department were prohibitive. A notable example of this effort was Camp Upton, New York, which the State Council of Parks desired to purchase for addition to the State Park system of New York.

State Parks, or equivalent areas, have been acquired in several of the States through the use of fish and game funds. Missouri's twelve State Parks have been secured in this way. In 1923 a law was passed allotting 25 per cent of the game funds to the purchase of areas for State Parks. By 1925 the sum of \$175,000 had been accumulated, and in that year was used to purchase eight State Parks, to be administered by the Fish and Game Department. In Kansas, State Parks, or recreational grounds, have been purchased in the same way. In Nebraska, such funds will be used to acquire public fishing grounds. New York is utilizing a percentage of the fishing, hunting, and trapping license fees to purchase lands for demonstration forests, which it is said will eventually have recreational use.

Another method of acquisition of State Parks, Forests, and Game Preserves is purchase through legislative appropriation. Dependence on this method does not seem to guarantee a successful program. For example, Iowa's yearly appropriation of \$100,000 for State Parks was cut to \$75,000 in 1924. Massachusetts' forestry acquisition program was seriously hampered for a number of years when a proposed definite annual appropriation was cut. In Washington, several years ago, an appropriation of \$250,000 for State Parks was passed by the legislature but was cut by the Governor's veto to \$50,000.

In summing up the methods used for acquiring State Parks, Forests and other recreational areas, it is seen that all methods of obtaining money have been used. It is the only major State activity that has consistently accepted gifts of money for carrying on a State function. In a way this has hindered the establishment of recreation as a definitely recognized function of the State government, since many States seem to look upon the provision of recreational opportunities for their people as a semi-governmental activity, but an activity which they are willing to supervise. However, the trend is toward the assumption of responsibility for park and forest acquisition by the States through the issuance of bonds, as evidenced by the recent bond issues submitted to the voters of the State in California, Pennsylvania, and Illinois.

Principles Governing Acquisition of Park Areas

By FREDERICK LAW OLMSTED
(From California State Park Survey, 1929.)

IT IS almost impossible to state succinctly and without danger of misapprehension the principles which should control the choice, and order of precedence for acquisition under the authorized bond issue, of the projects above set forth,* because the weight to be given to different considerations varies widely in different cases.

The principle easiest to state and of most general applicability is that every dollar of the bond-issue money should be used to secure the largest possible values for the State. This means, of course, that as between two or more projects of which only one can now be carried through, the cost of the land to the State, in relation to its value for park purposes, must be a controlling consideration. That cost will be the price (not in excess of its market value for other purposes) at which the land can be obtained, by agreement or by condemnation, less the contributions (not less than half of the price to be paid) which are offered from other sources. A project for which the lands are offered at a low price, in relation to the park values which the project offers, or for which contributions in excess of half the price are offered from sources other than the State must have the preference.

In the general survey of the entire field an attempt has been made to keep an eye on probable costs and balance them against park values, but in many cases the figures of probable cost obtained are not at all dependable. It will, therefore, be necessary in many cases, in order to assure getting the greatest possible values for the State's expenditure, to carry negotiations with land-owners and prospective contributors through to quite definite figures on several alternative projects before taking title to one of them, often involving surveys and preliminary landscape studies for the manner of using and administering a prospective park in order to determine the most ex-

*A list of approximately 125 areas recommended for acquisition under the bond issue of 1928.

pedient boundaries, and also appraisals of market value. These negotiations will take time and money; some of them will lead to no definite result, except the extremely important negative one of avoiding purchases that seem desirable at first blush but would later prove injudicious. There is no dodging the fact that twelve million dollars of trust funds cannot be efficiently spent without considerable precautionary overhead expense.

Next, the selections must be such as will provide a reasonable geographic distribution and a reasonable well-balanced variety of kinds of parks; but some departure from an ideal balance of the different kinds and locations of parks desirable in a complete system may well be countenanced in the expenditure of the funds now available, for the sake of giving a measure of preference to the more urgent "now-or-never" types of projects, on the theory that other types, which are perhaps equally desirable intrinsically but the opportunity for acquiring which will remain open for some years, may be added later.

The grouping of the projects in the above list [*see note on page 90*] was dictated partly with regard for the above considerations. It would have been desirable to arrange all of the worthy projects in such groupings that I could say a well-balanced system would result from acquiring those projects in each group which prove to be most advantageously obtainable, in as large a proportion within each group as the limit on total expenditures permits, without omitting representation of any one of the groups. I can go so far as to say that I believe substantial acquirements should be made in each one of the geographical groups into which the seacoast projects and redwood forest projects are divided, the former involving a large preponderance of heavy expenditures in Southern California and the latter a large preponderance of heavy expenditures in Northern California; that substantial acquirements should be made respectively in the Big Tree group, in the Desert group, in the Lake group, in the Waterfall group, and in the Lake and River projects; and that as well distributed and extensive acquirements as possible should be made among the more miscellaneous projects listed under the other heads. The projects under the more miscellaneous headings do not lend themselves readily to formal groupings, either geographic or functional, such that a representative selection of the most feasible projects

in each group would automatically result in a well-balanced selection. There will inevitably be some elimination of projects which prove not to have sufficient popular appeal to make possible the raising of contributions for matching the State's money. And for the rest, while I have some opinions as to relative urgency and relative importance in a well-balanced system, these opinions must be weighed and balanced in each case against considerations of cost as determined by practical negotiations with money in hand and power to decide and act. Final responsibility must rest upon the Commission, acting judicially upon information and advice presented by its executive officer and other responsible agents, and seeking in all promising cases to balance cost against the qualities of intrinsic excellence, of importance as contributing to the well-balanced variety of the ultimate park system, of urgency or danger of total loss through delay, and of reasonably equitable geographic distribution.

Values, Real and Sentimental

By ALBERT M. TURNER

(Report of Connecticut State Park Commission to the Governor, 1917.)

A VOLUME or two could easily be written under this head, and many volumes have been, most of which I have not read. Few words are so loosely used, or so little understood; and with no sort of pretension to a real knowledge of the subject, a few words seem to be called for concerning the real value of natural scenic beauty. Without attempting to defend the use or misuse of that term, I will use it here simply to mean the smallest number of dollars necessary to acquire a good legal title to the land which contains or commands the natural beauty referred to.

The various factors which determine such real value will include the degree of rarity of that special feature, its location, its possible utility for commercial purposes, the owner's tastes and his ability to gratify them, the number of possible purchasers, and the temporary purchasing power of the dollar itself. There may be others, but the complexity of the problem is sufficiently apparent.

In the case of an ordinary farm, or a city lot, where possible purchasers are many and the market is free, it is commonly held that a public auction and actual sale to the highest bidder sufficiently establishes the real value, and this method is frequently also the court of last resort in the case of works of art or personal property, but the difficulty and absurdity of thus attempting to establish the real value of Niagara Falls or the Grand Canyon should require no demonstration.

Yet I have often been told that any other notion of real value is purely sentimental, imaginary, and non-existent.

An artist friend of mine affirms the existence of certain materialists, who, "if they could have their way, would scrape this green earth down to the bare brown dirt, run it all into gold dollars, and have them all raked up into neat little piles, with every man sitting on his own pile, making faces at his neighbor." I trust my friend has overstated this, but my own acquaintance is still limited, and I do occasionally meet one of the family.

We are now beholding, with every manifestation of horror and amazement, the rapid and uncontrollable shrinkage of that little gold dollar. It looks like the same old dollar, but it will buy only about 50 cents worth of chicken-feed, and we may yet have something to learn about real value.

In my own opinion, the only land which possesses real value for the purposes of a State Park is that which contains or commands some striking feature of natural beauty or historic association, and that opinion, while it is not fixed, will have to serve me until someone advances a better one.

In many minds the word park is so closely associated with the word city that a very considerable effort is required to substitute the new idea contained in the two words "State Park." Now the city park must of necessity be located in or near the city, and the chances for including much natural beauty are comparatively few. Nature usually has to be assisted by art, which also costs money, and must always be relatively puny in its effects. The idea of the State Park is much more closely allied to the idea of the National Park, and the Act of 1913* repeatedly enumerates the purposes of public recreation, preservation of natural beauty, or historic association, and for purposes purely of recreation, the decided preference shown by the public for places of natural beauty, when free choice is possible, admits of no doubt.

It is my own opinion that the only means of establishing real values of such property in Connecticut must continue to be either by agreement between the owner and purchaser, or, in the lack of such agreement, by the agreement of disinterested appraisers. A State Park commission would seem to constitute just such a body of disinterested appraisers, and in Massachusetts the various commissions in charge of State Parks are clothed with authority to do their own appraising and to take, in the name of the State, any lands required at the price fixed by such appraisal. They are somehow supposed to be exceptionally qualified by their previous experience, and to be personally disinterested. An aggrieved owner has, of course, the usual redress in the courts. But Massachusetts is so radical. Here in Connecticut we much prefer to make a separate affair

*The act of the Connecticut General Assembly creating the Connecticut State Park Commission and defining its purposes, powers and duties.

of every case as it arises, with a new set of appraisers who are likely to be entirely free from prejudice if they know nothing about the matter.

The State Park Commission of Connecticut, however, stands in an unusual position in having the whole State under consideration, and its rapidly increasing knowledge of comparative values, with the confidence born of that knowledge, and its ability to act or wait patiently, will soon give it an immeasurable advantage over the individual, or even the professional dealer in real estate.

For the State Park Commission, the question is not then "Is that such a price as I would pay as an individual for that property, with the expectation of a future profitable sale?" but rather, "Will the park system of the State ever be complete or satisfactory without that property, and, if not, is there any likelihood that the price now asked can ever be reduced?" It must be evident, also, that once the choice of site is made, there should be no hesitation in using all available funds in purchases which will arrest further development, at the lowest prices obtainable, with the certainty that such action alone will be the truest economy.

The full force of the foregoing principles will not be recognized by the holders of selected sites until the commission, by consistent and long-continued action shall have demonstrated its unusual powers, but it is not too early for the commission to formulate and assert such principles, or, if you please, opinions.

If these principles are sound, or the opinions right, they furnish a practical aid in the difficult task of selecting the first sites for acquisition; namely, those which, desirable in themselves, seem most in danger of immediate further development, and include within their boundaries a considerable proportion of undeveloped holdings which are now for sale at prices within the limits of the funds available. Among such sites, further preference may be given to those which possess unique or extremely rare features, or to those which will in the shortest time be available to the greatest number.

Planning a State Park for Use

By HAROLD A. CAPARN

(Address delivered at the Fourth Annual Meeting, National Conference on State Parks, Gettysburg, Pa., 1924.)

IT appears to me that the first thought that would occur to anyone who was entrusted with the responsibility of developing a State Park would be the question, What is a State Park? The second would be, How should we treat it? There are so many kinds of State Parks that both these questions would seem to be very confusing. Looking up the records, a State Park would appear to be any piece of land belonging to a State and preserved under park conditions. But if we think a little further, the task is not nearly so confusing as it seems. My reply would be, Make the park according to the suggestion of the site itself. Ask yourself the preliminary questions, What is the situation, the size, the present character, the surroundings, and what are to be the uses of this piece of land? Then make the scheme to fit all these conditions, whatever they may be. That is the way to make a scheme for any park. This will, of course, mean that a State Park may be planned with the characteristics of a National, State, county or city park and yet be a State Park. If its natural features and situation give it the character of any one of these, it will be developed accordingly. This is one of those problems that will solve itself, and the job of the solver is not to find how he can invent a clever, striking and beautiful plan, but to discern what is this solution that offers itself, to see the thing right in front of him, often so difficult to do.

Thus we arrive at these general conclusions: if the land in question has the quality of a National Park, treat it in that spirit; if of a State Park, treat it in the State Park spirit if that be different from a National Park; if of a county or city park, treat it accordingly.

Fortunately for the clarifying of our ideas, we are greatly aided by the fact that, although there are many kinds of State Parks, the popular impression of a State Park is of one particular kind or class. What people think of when they hear the term State Park is a piece of representative scenery, usually of

considerable extent, created, developed, and adorned by Nature in one of her more genial moods, and so preserved for the use and admiration of an appreciative people.

Now our ideas begin to arrange themselves, to fall into place. We can classify a State Park and exclude other classes of parks, no matter what their title, whether they be called State Parks or not.

You may have noticed that, so far, I have not used the word "design" or "designer." This was done advisedly, for it seems somewhat futile and inappropriate to speak of "designing" a thing that was chosen because it was done by the Great Designer, and that is to be preserved as an example of His work, whose value consists in its having been conceived and executed in a style and spirit and method and scale altogether beyond our capacity. This State Park first took form in the imagination of the universal mind; it took millions of years to make, and was created by cosmic processes. It has supported and absorbed, given birth to and buried unknown generations, genera and species of plants and animals, and even of mankind; it has passed through changes and cataclysms that men of science, even now, are only able to sketch roughly and speculatively. It is the result of all these causes, the growth of geological time, and shall we talk of "designing" it? I, for one, am not so presumptuous. Instead of using the word "design" with regard to a State Park, I would say that we should try to interpret and display it; we should try to understand what its Creator was thinking when He made it, and do to it only such things as would help to make the thought clear to others; to make it approachable and usable, and understandable by as many people of as many present and future generations as possible; to take nothing out of it that would be seriously missed, and to put nothing into it that would seem an intrusion; to do nothing that would seem to mar the idea of its creation, and to do all we can to illuminate it. This is a high standard to hold up to one's self, and probably unattainable, but it is, at least, one worth striving towards. We all know the value of setting standards higher than we can reach.

This is obviously written of the ideal State Park, but the ideal does not often exist, even in State Parks. Mostly damage has been done to a greater or less extent by man for his own needs as he saw them, which seemed to him vastly more important

than the destruction he wrought. Here it is that the interpreter may find his difficulty and his opportunity. What was here before man came with his tools and his machinery, and his terrible and relentless breaking down in order to build up things that would often better not be built? How should it be restored, if restoration is possible? If restoration is not possible, what shall he do instead? How can he work in harmony with the original scheme, and yet do something different? There are cases where the destruction has been thorough and extensive, where little or nothing remains of primeval conditions, but only the place where they were. What to do in such a case so that in a generation or two people may enter and feel that they are in the presence of a piece of representative scenery, of the best that the region round about had to offer, so that they may say "This is New York, or Pennsylvania or Oregon, or Iowa or Florida at its best"? This is a task that may indeed stimulate the interpreter to think and work his best, and to inspire others to do likewise, and may arouse in him that insight or second sight that is at the base of all true design.

It is fortunate that most of the works of nature that are of interest in parks can be restored. Existing soil conditions can be improved. Soil can be brought in and the original kind of growth renewed, and wherever trees can be made to flourish, beauty can be created, and beauty is the most important essential in any class of park, for without it people will not regard the place as a park at all. Rocks, however, can never be put back, and the damage done by dynamite is quite irreparable, in the sense of putting back what was there before. It can be covered up and concealed but not restored.

An example of possible repair, though not of restoration, might be a disused stone-quarry. It has been made by processes not so very dissimilar to those of Nature, who has always rent and destroyed her own rocks in every way and on a vast scale, and when they are exposed to the air, has proceeded to weather and decorate them after her own leisurely fashion. In the course of years, the raw stone of the quarry will weather and mellow, and completion of the work of reclamation may be greatly hastened by filling of pockets and other places with soil for the growth of suitable trees, shrubs, and plants. There are enormous and shocking scars of blasting in the Harriman Park on the

west bank of the Hudson River; but these will gradually take on the color of the other rocks, and the appearance of a natural formation might be simulated by the removal of more rock, until shapes and proportions in harmony with those of geological action are attained. Then soil could be added, more especially below, where it would support a growth of forest to conceal the lower part of the artificial cliffs, and two generations hence the casual visitor might believe that he was looking on a scene co-eval with the rest of the river valley.

To get further away from generalities and a little nearer to the practical sides of the question, let us suppose the interpreter confronted with a State Park problem. How will he approach it? I suggest that he stay on the ground, travel in and through it to feel that he has absorbed the spirit, not only of it, but of the surrounding country. That he study somewhat the geology and the flora and the two histories, the long one before man arrived and the short one since his coming. That he study its countenance and its personality until he feels that he understands wherein this piece of land differs from all others; until he acquires a general impression or conviction as to what can be done through his agency to display, to preserve, to develop, and even to improve it. I use the word "improve" with hesitation, but advisedly, for, after all, Nature was not worrying very much about the needs of a State Park when she made it; she left that for us to discover and demonstrate—surely little enough for us to do when she has done so much for us.

What I would call "improvements" in a State Park are, first, the encouragement and increase of such of the native indigenous vegetation as we might consider most desirable; for instance, there might be a wild growth of dogwood, or rhododendrons, or laurel, or bearberry, or highbush huckleberry, or white or red pines, or a hundred other things that we could protect, and whose living conditions we could improve. To what extent this should be done must be left to our interpretive side; how it should be done is merely a question for our farming or plant-growing skill. And this suggests, incidentally, how valuable an agency the State Park may become in preserving our most attractive and characteristic plants which we all seem to conspire to destroy in proportion to the love we have for them. Everybody knows about the trailing arbutus, and most people try to eradicate it;

but much less sympathy is spent on the incomparably greater pillage of other Ericaceæ, that wonderful botanical family that seems to contain only plants that both the florist and the landscape architect unite in considering desirable and "choice," as the nursery catalogues call it, indispensable, in fact. In this family are not only the bearberry and the trailing arbutus, but also the rhododendron, the laurel and the azalea, and for many years we have been wrenching them from their homes and shipping them somewhere else, many hundreds of carloads a year. I claim no exemption, for I have been helping. I have to, in self-defence, and I fear we shall all have to until these our most precious floral treasures are exhausted and survive only on State Parks and a few other places. Many other fascinating but less popular plants belong to this family, and I suggest that wherever any of them grow wild, the State Parks be regarded as refuges for the Ericaceæ.

Thus it would seem to me proper for the State Park interpreter—if he is a *réal* interpreter—who finds rhododendron, or goldenrod, or redbud, or sand myrtle, or wild lilies, or orchids, or magnolias, or whatever seems to give a rare or characteristic note to the scenery, to increase their masses in size and sumptuousness and to combine them with other plants after the suggestions of the locality. Thus he may be actually said to improve on Nature, for he is doing not just what Nature did, but what she hinted; not just in Nature's way but as we would have preferred her to do, as she might have done in a somewhat different frame of mind.

I have been careful to suggest in State Parks only the following of Nature's example, for the treatment of the typical State Park, as I see it, is quite different from that of the usual city park. The latter is created under a set of conditions and for uses other than those of a State Park. It must serve intensive purposes of another kind, and be planned in a different spirit, with means and materials and features suited to it. Its composition is based on the character of the site, yet its scenery is made of such artificial parts as lawns and exotic trees, shrubs and flowers, to say nothing of systems of roads and walks and structures that would be quite inconsistent in a State Park. Such a park may be correctly said to be "designed," for though the scheme should appear to grow out of the ground and the natural conditions, it

is such a thing as Nature never put together unassisted. Whether it is easier or more difficult to do all this than to interpret a State Park, I do not know; but I feel sure that it is a different thing.

Another class of "improvement" in State Parks would be, for example, the making of a lake where a basin already exists, but no barrier to impound the waters. Such a lake cannot usually be distinguished from a natural one, and the interpreter may well expend his skill and judgment in constructing a dam that will seem to be as much a part of the scenery as the lake itself. In view of the extreme importance of water in a State Park, especially to campers, one might strain a point, and even create lakes in those parts of the country where there are valleys with running streams but no barriers, and consequently no lakes. Many problems of different kinds, but still of this class, may arise in State Parks, and on the judgment of the interpreter must depend the propriety of constructing such artificial things. One stipulation, however, I would make, and that is, that when made they should look as though they had always been there.

Another class of improvement merely calling for mention is the protection, and perhaps restoration, of the wild animals and fishes.

Since we have assumed the display of the scenery, which includes making it accessible, to control the State Park problem, it follows that the roads are features of first importance in the development of a State Park. The road question in parks seems to be taking on a peculiar aspect; though there is more wheeled traffic than ever before, fewer roads are required. The auto traffic is so swift and numerous as to endanger the comfort and even the lives of pedestrians. City parks are used less for driving in than for driving through, as short-cuts to somewhere else. It is therefore necessary in any class of parks to be careful not to put in roads unless really necessary, or they may defeat the ends for which the park was created, which are those of a refuge, a place of safety and relief from an oppressive civilization. When their general course is decided, their lines and grades should be carefully studied. Road-making is so costly and traffic so heavy nowadays that we really cannot afford any more to make roads with the haphazard lines and grades to which we all seem to be condemned for everlasting on most of

our public roads. Roads should not be laid out as a series of straight lines and angles which in the old-fashioned country road became softened and concealed by the curves of the traffic and the encroachment of roadside weeds; but perpetuated and accentuated by the concrete paving of a modern State highway, they become repulsive. Concrete as a paving material should be kept out of State Parks, unless for some reason so good as to be overwhelming; also, any kind of patent or fancy pavement, such as asphalt blocks. I would recommend that a State Park road should look like just a plain road, and if first-class construction is desired, and there is money enough to pay for it, there are plenty of bitulithic or oil-bound mixtures that will make a road much like a plain road, and yet one that has the practical advantages of concrete.

A word on buildings may be useful. It is not possible to say what State Park buildings should be like, but it is easy to say that they should be in the State Park picture. One way of accomplishing this is to build them of the local materials; for instance, boulders where boulders are available, wood where they are not. I would suggest Bear Mountain Inn as a very good example of a State Park building. Where there are no boulders, but quarried stone can be had, rustic masonry might be very acceptable. There will be cases where both wood and stone will be scarce as, for instance, by the seashore, but there, however, sand is plentiful, and this seems to suggest concrete. But even here I hesitate to suggest concrete placed where it can be seen. All these and innumerable other questions must be answered by the State Park interpreter.

Since nothing could contribute more to a popular appreciation of and desire to protect State Parks than a knowledge and understanding of them, it is suggested that there be pictures and descriptions, and perhaps mounted specimens of the birds, animals, and fishes, of the plants, trees, and bushes found in the park, easily accessible to visitors. Records of historical events should be in plain view. And there should be some account of that geological history of the park, compared with which the history since man's arrival is like that of yesterday, and it should be illustrated with such specimens of rocks and fossils as may be available, and models or pictures of extinct animals that certainly or probably inhabited it. All these should be as

simple and understandable as may be. It would seem to be better not to make a separate building for them, but to install them as decorations in the central and most used park building.

Planning a State Park for Use

By JAY DOWNER

AS I see it, the first thing that a park board needs is to secure an executive, preferably one with technical training, who is broad-gauged enough to go out and get the best advice obtainable from members of the various professions who have made a study of the subject. Many mistakes have been made because landscape architects have failed to cooperate with engineers and perhaps an equal number of park features are badly done, or at least mediocre, because an engineer who happened to be in charge would not seek the advice of an architect or landscape expert for the particular problem in hand. I am sorry to say that a good many of the members of my profession scorn the services of an architect and the result is usually a structure or a landscape layout lacking in proper proportion as to details and suggesting that the opportunity to do a really fine thing has been thrown away.

I have found by practical experience that the cooperation of architects and landscape architects is a very important element in the development of parks. We have always leaned heavily on both professions. On several occasions our designing engineers (and we have one of the best crews of designing engineers that I know of) have come to me wanting to make the architectural designs for our stone bridges. They, of course, always design the structural part. I said, "All right, go ahead," and they would make a number of sketches and it would always end up by my disregarding them all and getting an architect to put on the finishing touches. Engineers have built many structures—hundreds and thousands of them over the country—which could have been made beautiful if the aid of an able architect had been enlisted with the exterior details.

On the other hand, our architectural friends have lost opportunities by trying to make their opportunities too big. Some-

times they are asked to design a simple structure and they try to make it a monument of some kind, which discourages their employers, and the plans are turned down. So what you need is men, as Mr. Caparn pointed out, who will study the particular problem and find a simple solution in good taste for that need. This can always be done, and any important work can best be accomplished by the engineers getting the advice of the architects and landscape architects.

The Need of Professional Skill in State Park Planning

By CHARLES W. LEAVITT

(Address delivered at Fourth Annual Meeting, National Conference on
State Parks, Gettysburg, Pa., 1924.)

IN THIS country we are prone to think of parks as sections of terrain set aside for pleasure, recreation, sport, and rest, and the generally accepted theory is that all of these benefits may be had therefrom by leaving the land as made by Nature or, if it has been changed by man, then, if possible, restoring it by naturalistic treatment. As our population has increased, park lands have been used by numbers of people not anticipated when the parks were developed and, for this reason, many of our parks recently have failed to give satisfaction. They appear to be over-used, worn out, overcrowded and not at all what they have been formerly in point of view of charm and attraction.

Some few of our parks were designed and developed from plans drawn by trained professionals, some were developed by "rule of thumb" methods, and some have not been developed at all. It is no more difficult to distinguish one from the other than it is to note the difference between a well-designed building and a hut, or a well-tailored suit from a suit of jeans; although both the hut and the blue jeans may afford protection from the elements, they neither one satisfy our artistic sense. The "rule of thumb" park generally does not function as efficiently as does one professionally designed, and gives little satisfaction as an object of art.

Few, if any, parks are built and completed at one time. Without a plan, and developed in accordance with ideas differing in each political administration, such parks present a fair idea of chaos! With a well-drawn plan, each administration can do something in accordance with such plan and eventually a beautiful and artistic effect can be obtained.

It has taken a long time to educate the public to a realization of the necessity of securing park lands for the use of future generations. Until very recently our whole United States has been free and open, subject to the use of all citizens. Now, with our many, many laws—apparently too many for obedience—

with restrictions imposed against trespass because of our fast-growing population, with the resentment of farming landowners against the city dweller who ruins the farms, and with the fact that our travelers find more freedom and better facilities for recreation in Europe, where large tracts of land have been devoted to the use of the public and where laws relating to such tracts generally are obeyed, there has been awakened here an interest in parks never before known in this country.

In order to secure the best results, scientific examination and careful study of our parks should be made. Plans for development should be drawn by those who, after thorough engineering education, have devoted themselves to such work. The designer of parks needs as his equipment knowledge and understanding of rocks and soil, the use of water and meadow-lands, the value of clay, sandy, and loam soils—those that are acid and those that are alkali, and of plants, shrubs, and trees; their habits and the effects to be secured from them during the various years of life; how to arrange them for artistic effect, how to make eliminations of the natural growths so as to permit of greater vision and enjoyment of landscape as well as of waterscape, the winter, spring, summer and autumn effects. Without learning and years of experience in observation, design, construction, and maintenance, the layman will miss much which the professional can secure. The conclusions of the former become hit-or-miss instead of the reasonable certainty of the latter. The park commissioner working without professional advice is like a hospital operating under the guidance of druggists instead of physicians, or like a man going into court without a lawyer—they may make good, but chances are very much against them.

In the development of parks the public fund pays the bill and the public is entitled to get as much for the money expended as is humanly possible. To build a park without the best professional advice throws the responsibility for results upon the commissioners who must answer to the public for the results. Judging from past performances, the best and most satisfactory results have been obtained from the professionally designed parks.

Freak things occur in nature and sometimes are greatly admired by the public. They afford the same diversion as a trip to the circus and a visit to the freaks there; one scarcely would



The incoming sea, Indiana Dunes State Park

consider it as a daily recreation, and we do not care to live with them! A gigantic masonry bridge, interesting for its bulk, may be viewed with eagerness once. A bridge properly designed with engineering skill to carry the load imposed with a reasonable factor of safety is not only more economically constructed than the masonry mass but, if well done, becomes an object of art, a beautiful picture and a joy forever, one that you can look at as often as possible and still enjoy. Sooner or later the freak will be removed, no matter how expensive it was, but the object of beauty will be continued as long as it will endure; and those who were responsible for its creation—the public, the commissioners and the designer who performed the work for them—will be the recipients of admiration from the generations who come after. Consider the New York City Postoffice; it is not a thing of beauty and therefore will be destroyed. The New York City Hall, beautiful in every line, will remain.

Through our training and knowledge of precedents, our skill in design and arrangement, and in the handling of materials and plant-life, we will create parks which are useful, beautiful, and satisfying, to be enjoyed now and in the future, by people who employ experts and pay for them.

But that is not all. In this country many of our park lands have been secured by the wisdom of preserving efforts of laymen, far-sighted citizens who have given much to posterity. In many cases this same group of citizens, or a similar group, have tried also to function as landscape designers, and have failed. They have not realized that it is not only the park lands which should be designed but, where possible—and it has been possible in Europe and in a few places in this country—no buildings should be put in parks other than those necessary for the park operation. Yet, about the edges of the parks are the best locations for public buildings, with the park as foreground. Properly to locate such buildings requires professional knowledge and the trained landscape engineer should be employed, not only to design the park, but to point out locations about the park on which public, quasi-public and large private buildings may be constructed to the advantage of the buildings as well as the parks.

Professional talent, then, for the design of parks is necessary, not only for the very life of the park and its power to function,

but also for the planning of the immediate environs of the park. The advisor in the matter of park creation must be a city planner, and a good one. In considering the function of a park, either a city park or an extra-city park, its influence, both philanthropic and artistic, and its very great importance, does it not seem the height of absurdity to allow design, location and general creation to be controlled by anyone but the trained—very highly trained—professional?

Trails in State Parks

By EMERSON KNIGHT

(Address given before the National Conference on State Parks,
San Francisco, 1928.)

I WISH to make clear at the outset that I am considering only one special phase of the subject of Trails in State Parks. Doubtless there are a number of men in this audience, highly qualified to design trails of a practical nature for the safest and quickest passage from one point to another, for purposes of connecting camp or ranger sites, or for fire protection and patrol. I esteem highly these men of the United States Forest Service, the National Park Service, and the State Forestry Departments, for all their gifts, their devotion to their callings, and for their sincere response to the thought of preserving the beauty of nature in its wild state. There is another field of design besides this practical one which may frequently be linked or blended with it in close association. It is that of trails conceived primarily for leisurely enjoyment, where the climber, by means of easy gradients, may loaf and invite his soul, may contemplate nature in comfort, free from physical strain, and indulge in receptive moods wherein nature will flow into his spirit with true building power. Such trails are basically esthetic in their conception. They must be planned as thoroughly as any architectural design, to unfold in sequence a series of connected vistas or impressions, like a slow-moving drama, making for unity, and also expressing variety, fitness, or propriety and character. When the logical choice of location is married to a happy and spontaneous unification of its parts, the trail should awaken in the climber a strong sense of quiet invitation.

We are all here because we have at heart the preservation of nature's wilder aspects and beauties for the use of the people in State Park form. We experience constant inspiration and renewal when close to the hills and mountains, the forests and the sea. The hills won my reverence from the hours of my earliest recollection, first those about Cincinnati, my birthplace. Moving westward to Southern California, the hills of Los Angeles were explored, the Caheunga and Verdugo Mountains, then the Sierra Madres and the San Bernardinos of the San

Gabriel Forest Reserve. Many times I have footed their trails alone, even at night. In early manhood, acquaintance was gained with the trails of the Santa Inez Mountains, those of Monterey, and the coast ranges of Central California. Finally came the spell of the Sierras in the Yosemite and Tahoe regions. While cherishing the company of those who feel hushed at times in nature's presence, it is possible to be so at one with the mountains, lakes, and forests that we can never feel any sense of loneliness when alone with nature. John Muir, through his life and profound yet joyous understanding of the laws and beauties of nature, expresses for us our loftiest dreams of such a kinship.

When in Europe I was moved by the historic significance of old byways, lanes, and trails of Italy, of the Italian-Swiss Lake country, and of Germany, where much of the way between Frankfurt and Cologne was traveled afoot. In the well-kept forests there it was not unusual to see whole classes of boys and girls walking through the woods with their masters, being instructed in nature lore, and very often singing together, which has left a very happy memory. In England, while walking through the south counties, one finds the Old Pilgrims' Trail, leading toward Canterbury Cathedral, very inviting, because of the intimate bloom and bird-life along the hedgerows, and the sense of security because so removed from the noise, dust, and danger of any motor-traveled highway. Often, between villages wind old bridle-paths which, as they rise and fall, reveal the friendly spires and roofs of the quiet towns. Between Winchester and Salisbury, the course of the old Roman Road, left in its ancient state, offers protection from vehicular travel along its rigidly straight lines. On the Isle of Wight, the paths skirting the high cliffs along the south coast are alluring. The banks of the Thames and other streams through the countryside are fascinatingly footpathed. All this reminds us that for the safety of our people who walk, either of necessity or for pleasure, we should find and provide safe paths for them to travel afoot, apart from our speedways and main arteries of heavy traffic.

A few years ago I was called into the service of the Save-the-Redwoods League and slowly developed an intimate acquaintance with trails through the redwood regions of Humboldt and Del Norte counties. During years of professional growth and practice in landscape architecture, one could not enjoy a higher

privilege than to be identified with work so broad and ennobling, and with human characters and personalities so lofty as those associated with the Save-the-Redwoods League. Among its officers and councilors are men with farseeing vision, remarkable executive ability, rare judgment, and unselfish devotion to a world-significant cause. To work with such men is inspiring, zestful.

One of the most interesting problems in trail design thus far offered for my solution came through the League and George Frederick Schwarz, donor of the Graves Grove, in Del Norte County. This magnificent grove of redwoods, dedicated to Col. Henry Solon Graves, former Chief Forester of the United States, is situated about 11 miles south of Crescent City. The park property extends upward from the rugged ocean front to a boundary above the Redwood Highway, whose course winds through the grove at an elevation of from 800 to 900 feet. When undertaking the problem of laying out a new graded trail down through this dense growth and primeval forest, the only trail then existing from the highway to the sea followed down a precipitous ridge, with the stiffest kind of grade, which, while suitable enough for emergency purposes, was a most hard climb. This trail being then heavily overgrown with brush, men were set at work clearing the course, while for almost a week I broke my way through the nearly impassable ferns and giant undergrowth in order to study the topography as intensively as possible and gradually visualize the ideal course for the trail.

The ridge down which this new trail starts lies to the north of the monument on the highway, and first penetrates one of the noblest stands of redwoods in the park, together with a series of great basins of sword ferns and rhododendrons. It was the wish of Mr. Schwarz that the trail be kept as quiet and unobtrusive as possible, adhering to Nature's undisturbed mood, and that in its course from the highway to the sea it should embody some of the most interesting features of the forested park in a unified manner. Before the trail descends below the area of the great sequoias, there is a point, just before a change in direction, where there is revealed the first distant view of the ocean, framed by the trunks and foliage of the trees. This is, perhaps, the first distinctly dramatic note in the trail composition. At such a vantage point a simple, earth-formed seat or mossy log

might tempt the traveler to linger in repose and discover receptively the intimate beauty of the forest close at hand and the far ocean vista. There is a transition region between the redwood forest and the ocean wherein the most striking features of the course are groups of very fine alders, moss-covered maples of great size, and tideland spruce in single specimens or group formation. Through this less-forested country there is much underbrush and berry-growth, and framed by these tree-groups are newer and nearer glimpses of the rock-strewn coast. The finest view of the sea, which makes for the climax of the course, is at a point where the new trail merges with the old, only for a moment, sharply reversing its direction, where, under some tideland spruce a thrilling and superb view of the ocean is commanded, while the boom of the surf can be clearly heard. Finally the trail reaches the bed of Damnation Creek and follows down its dense, brush-clad banks for over a thousand feet to the rocky gorge which provides an outlet to the sea. The prospect along the ocean front from the beach terminus of this trail I believe to be one of the most virile, masculine, and magnificently dramatic in all California. This trail was not designed for use by animals but for human beings taking their enjoyment in leisurely fashion only. Some of the grades are less than 10 per cent, and the whole course as surveyed, from the highway to the ocean, is about $2\frac{1}{4}$ miles in length.

In the days before the wagon-roads through this rugged, north-coast country, the passage along the Eel River region toward Eureka, and onward to Crescent City, was made over what is now known as the Old Eureka Pack Trail. This course is now almost forgotten, neglected, and overgrown, even though it is historically important. In Del Norte County its route lay through what is now the Graves Grove, a State Park, and other property recently acquired for preservation by Mr. Knapp. This general territory last mentioned is included in the proposed Del Norte Coast Redwood Park, known as "Project III" by the Save-the-Redwoods League. Before it is too late, the aid of pioneers still living, who know the original course of the Eureka Pack Trail, should be sought for the purpose of clearing and re-establishing it. Assuredly this relic of early California history should be fittingly perpetuated and maintained, even as we have already preserved and emphasized El Camino Real.

In the Prairie Creek region, north of Orick, in Humboldt County, which includes a great redwood forest area proposed as a new State Park, and known as "Project II" by the Save-the-Redwoods League, the new Redwood Highway now being completed follows a more direct and much swifter course than the Old County Road. It was felt to be desirable to preserve as far as possible the remaining units of charming old winding roads, rich in sylvan beauty, and unite them in what might be called a Scenic Rambling Route, to supplement the speedway. This would provide comfortable, safe pleasure for the camper and explorer, and for that increasing group of persons who fare forth in quest of quiet places. In the light of this ideal, my services were sought in order to make a study of this territory of magnificent redwoods. The survey was carried through for a distance of some $2\frac{1}{2}$ miles as a part of an independent road of about 12 miles as proposed. It was found that in order to use the best location and grades, and establish the right degree of seclusion, the costs of such a road might prove considerable. Thus, in the event that this Scenic Rambling Route should fail to be realized for the purposes of motor travel, it is hoped that it may be constructed as a trail for walkers and saddle animals. No description of this great wild basin can here be attempted, for only through visiting these redwood forests and undergrowth of Prairie Creek can one gain any conception of their silent grandeur.

In this Prairie Creek Basin there are certain trails or roads, now little used, winding westward to the ocean through the richly wild country, and one trail leads northeasterly over the range into the Klamath River water-shed. These merit being opened for practical and enjoyable use. When the Prairie Creek region is acquired as a State Park, the demand will grow for a further development of a whole series of these feeder trails, extending westerly to the coast, and to the interior slopes of the Klamath River valley.

Related to the redwood forest parks along the South Fork of the Eel River, and the proposed redwood parks along Prairie Creek and Smith River, there are a number of ideal sites for camping on the benchlands bordering these streams, in the company of splendid maples, alders, dogwood, pepperwoods, and willows, where the open views are fine and the air exhilarating.

rating. It would seem desirable to insist, where possible, that camping be done in such spots rather than within the sacred confines of the redwood forest, because such use of the forest tends to trample down the oxalis, ferns and shrubs and vines of the forest floor and to injure the tender feeder roots of the redwoods, thereby greatly impairing their health and vigor. My recommendation would be that inconspicuous winding trails be established between such riverside camping-grounds and the heart of the redwood parks, so that visits into the forest may be made in the same reverent spirit in which we enter a cathedral; for we all freely admit that a hushed and noble forest is the grandest and most sublime cathedral that has ever been reared by the hand of the Creator.

Where monuments are placed in forest parks, it would seem fitting and proper that these should be so treated that it may become necessary to approach them on foot, in a mood of respect and upliftment. For, indeed, all these monuments have been erected in memory of great and noble men, most of whom are no longer with us, but all of whom felt deep love for and reverence toward trees. As the monuments now stand it is sometimes possible to drive so close to them in a car that the hubs will, and have, scarred the face of the monument stone. This is distinctly a wrong condition. By lending some sense of moderate remoteness to the monument, which can be accomplished, first by native plantings around the stone, and second by using old mossy logs as barriers to machine travel, the simple idea of a chapel or sanctuary can be assured. The connecting path is important and needs to have the character of naturalness and unobtrusiveness in its quiet course.

In conclusion, trails are capable of contributing to the amenities of life by renewing and strengthening our physical, mental, and spiritual forces, by deepening our esthetic perceptions, and heightening our appreciations. As our chain or system of California State Parks is realized, it will increase the enjoyment of a large number of our citizens and visitors if an adequate system of trails is developed, with the aim of revealing and emphasizing beauty within the confines of these parks. We might also look forward to the day when paths or trails, safe for the pedestrian, may be established between these parks, linking them as will the highways into one great outdoor play-

ground or recreational fabric. Finally, as an ultimate ideal, we might hope to have these trails cross the boundaries of California, and of all our States, in order to bring into a closer bond of physical joy and mutual understanding, these, our cherished United States.

As we build toward the future, we may swing at times into the mood of our seer and poet, Walt Whitman, in his "Song of the Open Road":

Afoot and light hearted I take to the open road,
Healthy, free, the world before me,
The long brown path before me leading wherever I choose.
Henceforth I ask not good fortune, I myself am good fortune,
Henceforth I whimper no more, postpone no more, need nothing,
Strong and content I travel the open road.

How Far Shall We "Develop" State Parks?

By ALBERT M. TURNER

(Address delivered at the Ninth Annual Meeting, National Conference on State Parks, Clifty Falls, Ind., 1929.)

THIS is not a new question. It was considered and answered a long time ago by a man of this Ohio Valley whose name will come to you in a moment, even if I do not speak it.

It is true that the form of the question was a little different; the form changes but the substance remains. The question was very old when it came to him, but his answer will never be old.

They asked him how long a man's legs should be, and the answer was "Just about long enough to reach the ground."

To fill the assigned time I must somehow try to expand that answer, but I can't hope to better it.

In the first place, we have outgrown the period of rail-splitting and stumbled into a doleful time of hair-splitting.

To answer the question in its present form according to its folly, one is normally expected to define his terms, to explain to his helpless hearers what a State Park is, and what the word "develop" may be expected to mean when, as, and if he uses it.

And we start with a tremendous handicap of two generations of park notions and habits which must at all hazards be defended and preserved by all right-thinking park men.

But I skip all that; if I can't be a rail-splitter I can at least avoid the methods of the hair-splitter.

For some ten years I was privileged to associate with one of America's best-known park men, George A. Parker, now quietly resting beyond the reach of such tormentors as I must have been, and we never composed our fundamental difference.

He would say "You can make a park anywhere," and I would reply "You can't make a State Park anywhere."

And the battle was on.

The stone wall between us was as low as that, but we could never get over it.

On the other hand, Mr. Parker was beset by the playground people who wanted to lay out golf courses on the choice landscape effects to the planning and development of which he had given his best years.

But in spite of my congenital dunderheadedness, I did ungracefully enough absorb something from Mr. Parker's long years of experience which he was always ready to share with anyone who had need of it. And do not misapprehend me, Mr. Parker was no hair-splitter.

He was dreaming of State Parks at least thirty years ago, and he was one of the three or four men in Connecticut who prodded that "Land of Steady Habits" into overt action in 1913, when the State Park Commission was established.

He was then Superintendent of Parks in Hartford, but was not at first named on the State Commission.

Soon after beginning my work for the Commission in 1914, I called on him with a self-introduction, and we adjourned for lunch to the nearest restaurant, which, as I recall it, occupied some three hours, though I do not remember eating anything.

He talked and I listened, and for you now I will condense it all into one sentence, Mr. Parker speaking to you through me:

"I have been in park work most of my life, and have actually been in more than fourteen hundred parks, but all the park work done so far is nothing but breakfast food; it is your job now to set the table for dinner."

And once again, years later, talking of organized play, he told me of an incident which had deeply affected the course of his thought. Some holiday had been celebrated with imposing ceremonies in a Hartford Park, in which, of course, the children had taken an extremely active part, carefully drilled and rehearsed, and at long last the hour of 5 o'clock had come and the park was apparently deserted. Like a good captain he was the last to leave, and just as he turned to go a little girl ran out of some bushes and glancing hurriedly around, turned and called to some unseen companions, dancing up and down with an eagerness vividly illustrated by Mr. Parker, "Oh come on, come on,—they've all gone away. Now we can play."

So much for background, and rail-splitters.

How far shall we develop a State Park?

I would say "Just so far as its anticipated use in the immediate future seems to demand; and if any doubt exists about the anticipated use, wait and see."

In Connecticut we are planning our State Parks so far as possible to preserve and display the works of Nature rather

than the works of man; we like to start with the best natural features we can get title to, and keep such work as must be done in harmony with the picture.

There are no rules for such work; it is an art.

It involves a sympathetic study of Nature and Nature's works and ways of working, a comparison with the most pleasing results to be found elsewhere, and an intelligent judgment of the ends to be served and the methods to be used.

We are befuddled in this generation by the scientists with their Natural Laws and neat little rules for everything, and we are deafened by the cry that the Future of the World depends on a broader use of the so-called Scientific Method.

Unfortunately for the scientists, it usually turns out that most of their immutable Laws of Nature work only in limited fields, and require a good bit of tinkering, even when firmly established by methods so scientific that they are admittedly inscrutable.

Now, humanly speaking, the Great Artist has always made his own rules as he went along, and as his knowledge and experience grew has made newer and better rules, to be thrown aside and forgotten whenever they seemed to hamper his work; and if the most recent pronouncements of Science mean anything at all they suggest the beginning of scientific humility and wisdom.

At least they are making new rules, which is hopeful.

We live in a changing world, and bewildered by constant change, turn in our dreams to something permanent.

We are here for a brief moment and would fain leave behind us some enduring monument.

When shall we learn the great lesson that the most enduring monuments are not compounded of stone or bronze or even brick veneer on a steel frame?

There are no short-cuts; no easy rules for developing State Parks, or Constitutions, or men. Let us at least be humble and go slow.

Life is growth and change; permanence is stagnation and death. But that is old stuff; pre-Einstein, if you get what I mean.

We must learn to think in at least four dimensions instead of three, and under the new dispensation Life and Death are

purely relative, and a permanent thing is only something that changes more slowly than something else that changes more rapidly.

The stone walls of the Clifty Falls gorge are more permanent than the trees that overhang them, but to the seeing eye they record nothing but change.

It is well to have a plan; it may even be well to follow it; but not too slavishly.

Every oak tree has a plan, all folded in the acorn; it will never depart from that plan so far as to imitate a pine; but it will slowly develop that plan as the circumstances of each growing season may permit.

Each day something happens to influence the growth of each bud, and the sum of such influence determines within limits the whole branching pattern and form of the tree.

There may be rules, but the rules change. If the fourth dimension bothers you, just forget it and search the records,—nobody will dispute a record, and the records of the older rules of oak and pine are still clear enough, though the filing system is like my own, a little sketchy.

Certainly, in our problems of State Park development, if we are not too dull or too blind, the trees will help us more than the scientists.

It may be fairly objected that I have covered but a part of the subject; that I have directed your attention only to development for use, and have omitted anything about embellishment or what is known to the engineers as "Beautification."

I will hasten to stop that leak with a single word. Don't.

There is, however, a particular problem which we repeatedly have to face in Connecticut, which may or may not be troublesome elsewhere. At present it might be classed as maintenance rather than development, but if it goes much longer unsolved it will become development, all right, without any argument.

The maintenance of open, grassy fields or of fully stocked woodlands presents no special difficulties, but the intermediate condition of old fields, the New England back pasture, is dependent on the help of grazing animals of some kind, probably the sheep kind. We have considered this answer, but have not yet made any experiments.

The axe, the bush-hook, and the gasoline clipper are about

equally abominable in the sight of Nature, and, fortunately, they are about equally footless in the back pasture.

If we leave the matter entirely with Nature, hampered by the lack of her own tools, she will use her old rule of an advancing cycle of forestation, which while well enough in many places, leads to a tiresome monotony if applied too generally.

The sheep are as yet unorganized, and are willing workers. They are true artists, in that they make their own rules as they go along, and their confirmed habit is such that even the lunch hour does not interfere with their work.

They maintain their own standards of work, and the foreman has only to estimate the right number of workers for each job.

Where the trees fail us, the sheep may help.

Before running the gauntlet of my outraged technical friends, I want to call on one witness long since laid to rest, but more alive today than many of us who still remember how to breathe.

My friend Horace Bushnell, of Connecticut, 1802-1876, has for you today just three words on this subject; short and simple words.

Horace was no hair-splitter by nature, though circumstances were sometimes "agin" him. He was a Congregational minister in his day, and one of the pioneer park workers of America.

He projected and realized in the city of Hartford, more than seventy years ago, the first public park to be authorized and paid for with public funds by direct vote of the people, now known as Bushnell Park.

As his dreams were becoming true and the work approached a temporary state of completion, one of his friends, walking through it with him, said, "Mr. Bushnell, where would you like your statue placed?"

And Horace looked around carefully, and said then, as he says today, "Under the bridge."

How Indiana Serves the Public in Its State Parks

By CHARLES G. SAUERS

(From the Eighth Annual Report, Indiana Department of Conservation)

A STATE PARK is a typical portion of the State's original domain. It is a tract of adequate size whose primary purpose is the preservation of a portion of the soil of the Commonwealth, of natural beauty and significance, in unspoiled primitiveness. Whatever else it may offer the citizen in the physical pleasure of outings, camping, hiking, fishing, nature study and recreation, its primary mission is this: The keeping intact and "unimproved" for all generations to come a part of Nature's original domain.

The organization of a State Park area for use of visitors is entirely subservient to the above definition. It is immediately evident that there must be some compromise between the basic policy and the necessity of handling crowds in such an area.

The first consideration is that of circulation. Visitors must find it convenient to get to and into the park, and once there the many points of interest must be accessible. It is the policy in Indiana parks to build only such automobile roads as are absolutely essential and which have a definite objective. Roads built entirely with the idea that the park must be seen from an automobile are of tremendous cost, cause much mutilation of scenic beauty, and really do not serve as the best means of seeing the area. We find that, having landed the visitor in the park proper, the best transportation medium from then on is on foot over trails that are easily and cheaply constructed, do not mar the scenery, and furnish an ideal method of really seeing a natural preserve. It is only on foot that one will take the time properly to value the landscape.

Each park will have one or more service areas. The principal service area will be that provided for the parking of machines, camping-grounds, picnic-grounds, shelter-houses, and bath-houses or refectories. Usually there is some space in the park which logically falls into this classification, both by location and topography. The principal auto road will lead directly to

this, and the many foot-trails will center at this point. Here will be found refreshment stands, comfort stations, and all such structures as are necessary.

A secondary service area is also essential which will contain the inn and its attendant buildings. It is the policy in Indiana parks to provide over-night facilities in the shape of State Park inns, in the belief that these areas should be made available for vacation purposes. The keynote of these inns is simplicity and wholesomeness. They are in no sense luxurious resorts for the service is limited, the furnishings throughout are of the plainest, and they are entirely informal. They are built with the idea in mind of furnishing comfortable sleeping-rooms and simple, well-cooked food at the lowest possible cost, so that they may be available to practically everybody. In the dining-room there is no menu, but what is popularly called the "family dinner" is served. The majority of the products are either raised in the hotel garden or secured from the surrounding country. Every precaution is taken to have well-cooked food, and the kitchens are held at a high degree of sanitation.

Keeping in mind that State Parks are undoubtedly a permanent institution and will be in existence many, many years to come, it is apparent that no construction other than that which is permanent is logical. The State Park inns are then planned for simplicity of service, with ruggedness in construction and with the view that they shall fit into the landscape in so far as possible. Usually in every locality where a State Park is found there is some prevailing early type of architecture and this is customarily used. Where this is not true, then a type is used which will fit. The necessity for long-lived construction with minimum maintenance practically precludes the use of rustic or log-type buildings. At the present time they are expensive in the use of materials and almost impossible to maintain for a very long period.

The State Park inns are let to carefully chosen concessionaires, on a rental basis of 10 to 15 per cent of the capital outlay. The leases provide that the Department shall have complete control of the prices to be charged, and the right of criticism of service is also reserved.

It is apparent that the principle of letting concessions to highest bidders is unsatisfactory. The experience of letting

concessions in city parks to high bidders has been sad. The bidder often pays more for his concession than it is really worth, and the public is bound to suffer, for the concessionaire will resort to gouging, both as to prices and service.

Any construction, either of roads, trails, or buildings, which is undertaken in a State Park is immediately at cross purposes to the basic policy, viz., the preservation of a primitive landscape, for it immediately introduces into such an area man-made and artificial things. Therefore, as much construction as possible is confined to the service areas and is of such type as will fit into the landscape. Wherever possible, native materials, such as stone and timber, are used. The structures necessary are comfort stations, shelter-houses, hotels, garages, pumping-stations, dressing-rooms, and cottages. As an example, shelter-houses are usually constructed of pillars of rough-hewn or sawn timber from down trees on the park, which support a hip roof covered with cedar shingles. The entire structure is treated with creosote stain to a medium brown. It is utterly simple, straightforward, serves its purpose admirably, and with a background of trees is amazingly inconspicuous.

It has always been true that those things which are furnished to the general public free of charge are ill-used, abused, and unappreciated. The Department of Conservation has therefore, from the very beginning, committed itself to a policy of making each park pay all or most of its expenses. From May to November all visitors coming into the parks are charged 10 cents, except children under eight years of age. This charge is made only once during the uninterrupted stay of the visitor, and he may come and go on errands out of the park without further charge. This charge is first made for its psychological effect in producing appreciation on the part of the visitor, and, secondly, because it aids materially in furnishing funds for maintenance. It also seems no more than fair that those who have the opportunity and wish to use it for seeing State Parks should pay something toward the upkeep, as compared to those who either do not have the opportunity or do not care to exercise it.

The development of a personnel to care for a State Park is not without its difficulties. There are no people particularly trained for this purpose because the idea is comparatively new and the demand for such personnel is limited. The key man in

every park is the custodian. We have found that our best success is to secure a person of considerable natural ability in the locality and then train him for the particular purpose. He must first have intelligence and a sense of appreciation and loyalty to the purpose for which the park is dedicated. He will be, at the same time, after proper training, a naturalist and a forester. He will have a knowledge of simple construction, have some executive ability in handling personnel, and further will have to be blessed with a great amount of patience.

Indiana's parks have always been short of money for even the bare necessities. Due to seasonal conditions, the park force fluctuates greatly in numbers. It has, therefore, been necessary to try to discover labor in the immediate locality which will fit into the scheme. Work is always of great variety, and men must be trained in simple construction, fire-patrol, gate-keeping, properly enforcing the park regulations, and at the same time be willing to do any of the many odd jobs which crop up.

Responsibility for the preservation of a primitive landscape is large. Since all the areas are heavily wooded, the great hazard is forest fire. Visitors must be repeatedly cautioned to be careful of cigar and cigarette butts, and the use of cooking and camp-fires is greatly restricted. Such fires are permitted only in the picnic and camping areas. Regulations are also enforced to prevent picking of flowers and in any way mutilating shrubs or trees, defacement of rocks, buildings or signs. The use of fire-arms is also prohibited. With these few simple regulations, it has been possible to keep our park areas in excellent shape and to find them, from year to year, in better condition than when we took them over. There are no unnecessary prohibitions or regulations. Each visitor is encouraged to use the park in every way possible for his own benefit. It is apparent that organized sports, such as baseball, golf, and the like, cannot be permitted since that would require the destruction of large areas of natural landscape. Likewise, so-called amusement devices such as merry-go-rounds, derby racers, and the like are not permitted, but all the natural sports such as hiking, swimming, horseback-riding, fishing, and nature study are encouraged.

Administration and Administrative Organization

By BEATRICE WARD NELSON

(From "State Recreation, Parks, Forests, and Game Preserves," published by the National Conference on State Parks, 1928.)

THERE are a great variety of administrative agencies under whose jurisdiction State Parks, Forests and Game Preserves fall. Of these three types of area, the State Park has the greatest variety of administrative agencies. Game Preserve work comes under the administration of an agency definitely created to administer it. It either falls under the game commission, a chief game warden, or a department of conservation in which there is a division devoted to this work. State Forests have the same type of administration, and, with the exception of West Virginia and Nebraska, each State has a distinct unit except those few in which it falls under a division of the Department of Conservation. In Nebraska, State Forests are administered by the Conservation and Survey Division,* and in West Virginia by the Chief Forest Fire Warden.†

Among the agencies administering State Parks are found State Park commissions and State Park superintendents, controlling single parks or entire systems; State foresters; departments of conservation or conservation commissions controlling forests, fish and game; highway commissions; fish and game commissions; historical or scenic societies; private organizations holding lands as public trusts; land commissions, and departments of agriculture. It would seem advisable for the welfare of the State Park movement if all State Parks had a definite form of administration. Probably the most practical system is a department in which are grouped all the recreational, development, and conservation activities of a State government. In a number of States such departments already exist under various names and have centered in them parks, forests, fish and game, and other comparable work. Through such a department it is possible to coördinate each of these activities in such a way that

*Nebraska conservation activities are now administered by a Game, Forestation, and Parks Commission, created in 1929.

†West Virginia now has a state forester, appointed in 1929.

it works to the advantage of each. Such departments exist in Indiana, Michigan, Louisiana, Massachusetts, Minnesota, North Carolina, Wisconsin, Virginia, New York and California. Michigan has a Department of Conservation and Development, but fish and game work is administered separately by a board of fish and game commissioners. In Massachusetts, also, State preserves are scattered under several agencies. With a great demand for outdoor spaces from the citizens in areas of large population, the trend is toward a central conservation commission including park, forest, and game work.

In two of the States, Nebraska and Utah, State Park work is under the administration of a State Park Board. No parks have as yet been developed in Utah, but this system is worked to good advantage in Nebraska. In a number of States—for example, Louisiana, Massachusetts and North Carolina—State Parks are under the administration of the State Forester. Massachusetts and North Carolina have already created park areas, but the work is just beginning in Louisiana. In Alabama, Oklahoma, and Mississippi the State Foresters have legislative authority to create State Parks through purchase or gift. This method sometimes tends to discourage the creation of State Parks.

A Department of Natural Resources has just been created in California. In this department all the outdoor activities of the State will be centered. In New York, a State Park Division was recently created under the Conservation Commission. New York has a large number of State Parks which were formerly administered by separate agencies. An effort toward coördination led to the creation of the State Council of Parks in 1924. This Council acts as a central advisory agency for a variety of commissions. Under an act of 1927 it was made a division in the Department of Conservation, although it maintains in its membership representation of regional commissions.

In several of the States, notably Kansas and Missouri, the State Parks are under the administration of the Department of Fish and Game. These parks are purchased from a certain percentage of the proceeds obtained from hunting and fishing licenses, and as a result of this method of acquisition they are developed primarily for the use of sportsmen. In Oregon, the parks are purchased through the Highway Commission and

consist principally of scenic spots along the highway, purchased to preserve them from destruction as well as to provide, in some instances, camping areas. These parks usually are small in area and do not logically come within the State Park classification.

The development of these three activities: State Parks, Forests and Game Preserves—so far as recreation is concerned, differs materially. State Game Preserves have little recreational development except that in a number of the States certain areas surrounding the Preserves are set aside where hunting is permitted. Public shooting-grounds are also being established by a number of the States, areas administered by the Game Department.

State Forests are usually of large size and therefore permit of ample recreational use. They are, however, as a rule, devoted to more simple forms of recreation, such as camping, fishing, hunting, and hiking. The State Forests of Pennsylvania have within their area public camp-grounds and State Forest parks and provide extensive recreational use. The forests of Massachusetts and Vermont are also largely developed for camping.

State Parks have a wide variety of use when developed for recreation. They offer opportunities for camping, hiking, boating, bathing, fishing, and are increasingly being used for winter sports. There are a variety of methods by which they are developed for such use. In several of the States, charges for camping-space are prohibited by law. In other States, such as Indiana, the receipts from such camping fees aid materially in meeting the expenses of park administration. During the past few years, substantial shelters in the form of one-room cabins, with a small stove for heating and cooking, have been developed. This system, originating on the Pacific Coast, may be found in many of the western State Parks and has been introduced in the Allegany State Park in New York. There, however, canvas tents have been substituted for wooden shacks. Where there is a charge for camping-space it is usually 25 cents a night. The shacks usually rent from \$1.00 to \$1.50 per night. Camp-sites in all the parks are provided with proper sanitation and water-supply. Firewood is available; in some parks it is free, in others there is a small charge. In southern Michigan, where wood is scarce, coke is provided.

The larger and more extensively developed State Parks offer a variety of service to visitors. Hotels operated under concessions are located in Indiana parks, the rental going into a revolving fund for the development of the park. There are two hotels in Custer State Park in South Dakota, a hunting lodge in Louisiana operated by the Department of Conservation, an inn at the Itasca Lake State Park, and a hotel in the Caledonia State Forest Park in Pennsylvania. In Connecticut, the provisions include gas, attractive bath-house lockers and bathing suits, restaurants, refreshment stands, guarded parking spaces and canvas bungalows in addition to camping facilities. In our most extensively developed State Park, the Palisades Interstate Park of New York, the service includes excursion steamboats, sight-seeing busses, restaurants and cafeterias, hotel service in the winter, boats, swimming-pools, parking spaces, and other facilities. The Allegany provides tents and shacks for rental and a store and meat-market for visitors.

Indiana is the only State which charges admission to each of its State Parks. When a park in this State is developed for the use of visitors, a small admission fee of 10 cents is charged. This income goes into a revolving fund which is used for the development of the park. It is the belief in Indiana that parks should be as nearly self-supporting as is possible, and that those who enjoy the parks are willing to contribute a small amount toward their maintenance. Under this system parks do not become a burden on the taxpayer. There is a tendency in several of the other States to adopt this method.

Several of the parks have been developed for winter sports, principally in the northern States. The Palisades Interstate Park has become a popular center during the winter, and skating, skiing and tobogganing are provided for. A ski jump has recently been added to the park's facilities. Similar development is proposed in the Allegany State Park, and considerable winter use is made of the Cook County Forest Preserve in Illinois. In other States to a lesser extent, State Parks near large populations are being developed for such sports.

There is a growing tendency to develop service areas in State Parks, centering the development for recreation in one area and leaving the remainder of the park a wilderness. This method is followed in Indiana. In this State within the main

service area are grouped the hotels, restaurants, lunch-stands, shelter-houses, cottages, garages, auto parking spaces, servants' quarters, laundries, power and public houses, garbage incinerators, and septic tanks. In the secondary service areas provisions are made for campers and picnickers, such as a safe supply of drinking water, camp cooking places, and sanitary toilets. Through the use of a service area, large numbers of people can be handled with comparative ease. From such areas trails lead to the wilderness sections of the park, leaving preserved in its natural condition for the lover and student of nature beautiful scenic areas for the preservation of which the park was created.

Some Principles of State Park Management

By CHARLES G. SAUERS

(From the Ninth Annual Report, Indiana Department of Conservation, 1927)

THE new and rapidly extending movement for State Parks does not permit much standardization of characteristics or equipment. Nor, in this early stage of development, is it possible to prescribe very accurately standards of eligibility of sites for these new parks.

Their very variety is a large part of their charm. And to detect and keep the very "spirit of place," the peculiar type of scenery and local color is the first law of park selection and development. Nevertheless, a few principles of equipment and management have arisen from our experience and may here be set down.

But, first, to look abroad for the work of others, what a blessing, what a treasure trove of health and happiness are our great National Parks! What a landmark in American social and even spiritual advancement was the reservation of the public estate of these wonderlands! How wisely was it done before the rush of the land-hungry and space-annihilating mob—of which we are all parts—would have made it impossible! These national undertakings should serve in many ways as models and guides for the establishment and control of the park systems of the individual States.

Our State Parks are not merely recreation centers and picnic-places. They are historical monuments, remnants of the original America, social safety-valves and havens of rest, comfort, and relaxation for fools like you and me who have all too successfully modernized and mechanized our every-day existence. We doubtless will not give this up, but should be wise enough occasionally to "come up for air."

In the haphazard development of our country we have reached a condition where almost any wild part within our borders seems worth while saving first and classifying and developing afterward. Of course, not all such land is of State Park size, but almost invariably these may all be useful under other classifications of publicly owned areas.

A State Park in Indiana consists of an area of natural landscape, largely wooded and preferably having within its boundaries unusual scenic features. The area should not be less than 500 acres. Accessibility by automobile is indispensable. A railway or an interurban to or near the park is most desirable.

After selecting lands of superior scenic interest and beauty, the next important question arises—that of proper administration.

Leaving out exceptional cases such as the vast Interstate Park of New York and New Jersey, it seems that, within any given State, all park properties should be under the control of one governing body. Problems differ in many of the units, but their solution is made easier by the collected experience of a central office, and their policies more adequately carried on as a State Park policy. The Government management of our National Parks is a sufficient guide here.

Into these parks crowd the vast masses of our industrial cities—a few aristocrats on foot, the remainder in cars. The first problem of administration is to answer their impulsive questions, "Where do we go?" "What is there to see?" "What is there to do?" These are important queries—the ones that brought them here. Some park authorities seem to think that the people will just naturally fall to, that they will find a proper camping-place, build a safe and sane fire, eat, be merry, clean up and go home, and do all these most improbable things without ultimately ruining the very place they adore and immediately rendering it unsanitary and unsightly. A city is a livable place because sanitary precautions have been taken to keep the people from poisoning one another. What about the waters and the woods? The hot and stuffy city is a safer place, hygienically speaking, than the average run of summer resorts; and a State Park will be no better unless all necessary safeguards are provided.

In our experience we have found that the comfort and well-being of vast crowds can be best administered to by the use of one or more service areas. Within the main area are grouped the hotels, restaurants, lunch-stands, shelter-houses, cottages, garages, auto parking-space, wash- and toilet-rooms, servant quarters, laundries, power- and pump-houses, garbage incinerators, septic tanks, etc.

Hotels and other food-vending places are under the super-

vision of the State. Our Indiana system of leasing the so-called "concessions" to carefully chosen managers is superior to letting them to the highest bidder or to the politically potent. We admittedly, however, are not automatically keeping up high standards—constant vigilance and admonition on the part of the State authorities are required. Let it be remembered that under our concession system all buildings and equipment belong to the State, with the exception of kitchen, pantry, and bedroom equipment which are furnished by the concessionaire. He also is responsible for all machinery in use.

Within the second area are provisions mainly for campers and picnickers, such as a safe supply of drinking-water, camp cooking-places, sanitary toilets, etc. Safe bathing-places along river-banks and lake-shores are indicated.

Altogether, the defined service area, serving as it does as a place of congregation and redistribution, handles large numbers with comparative ease. To it leads an unavoidable automobile parkway. From it radiate trails through woods and by shores. It serves, so to speak, as a filter. But, above all, it saves the landscape from ruin. It leaves this protected for the nature lover, student, artist, dreamer, and other impractical but socially highly important people. Our own Turkey Run, for example, which we acquired eleven years ago, is even more beautiful and in a healthier natural condition than it was then, and this park in these years has had close to a million visitors.

To a State developing a new State Park system, I would submit the following list of "Do's" and "Don't's." It is a brief but safe program for administration:

1. Provide a well-planned service area.
2. Provide a safe and ample water-supply.
3. Check its quality regularly in season by analysis.
4. Provide for sanitary sewage and garbage disposal.
5. Regulate quality and cost of food-stuffs and lodging.
6. Furnish fireplaces and free firewood to campers.
7. Stop the vandalism of picking or digging flowers and ferns, etc. (Best accomplished by appeals to the public.)
8. Keep a close watch for fires.
9. Avoid all artificial "improvements" in park proper.
10. Limit automobile drives to barest needs.
11. Construct easy and pleasant paths through woods and by waters.
12. Maintain service of nature-study guides.
13. Make small charge for parking and camping to assure proper maintenance.
14. Collect a small admission charge to park.

At the end of this list is a demand for a small admission charge. State Parks ought to be made as nearly self-supporting as possible, or else the cost will have to be frankly put on the tax duplicate. In the first case, those who enjoy the park will contribute a small amount towards its maintenance; in the second, the taxpayer in the distant parts of the State who likely will never see the place, will be compelled, nevertheless, to contribute towards its purchase and maintenance.

So much for the administrative end of State Parks. Its philosophy should be a minimization of useless effort on the part of the visitor and an enhancement of his appreciation of the natural charms and beauties of the place.

Aristotle, the great teacher of statesmen, somewhere has said: "It is the business of government to introduce beauty into its functions."

Now that this injunction is regularly observed in the equipment and enrichment of our daily lives, especially in good towns and cities, isn't it a golden opportunity to follow it in these State Parks designed for the delight of our higher leisure and recreation?

Today those choice spots of our State are an offset for the ills of our industrial civilization. In the future when the congestion of the population will be even more pressing than it is today, our State Parks will be one of the most priceless possessions of our people.

The Study of Nature in the Out-of-Doors

By LAURENCE VAIL COLEMAN

(From Contributions of Museums to Outdoor Recreation, a report prepared at the request of the National Conference on Outdoor Recreation, 1928.)

OUTDOOR EXHIBITS AND OUTDOOR MUSEUMS

UNTIL recently the natural history exhibits of museums have been made largely by collecting sample objects in the open—often near at hand—and bringing them indoors where, by processes involving the expenditure of more or less time and money, they have been reproduced or preserved for display. This tradition has been followed so scrupulously by museums that, in some instances, it seems to have induced oblivion to the fact that nature itself is accessible to everyone. According to an idea which is now receiving much attention, nature makes exhibits all about, and these need only to be labeled or described properly to give them museum value. Birds, trees, rocks, earth, ponds, brooks, and all the spectacles offered by parks and roadsides—these are potentially museum installations. Nature provides an incomparable succession of them at the threshold or within easy reach of the museum that can find ways of treating them as its own instruments.

This idea has challenged originality, and, under the stimulus of the vast public interest in outdoor life, it has accounted for some real progress in formulating new museum methods. Already experiments have resulted in the creation of National Park museums, camp museums, nature trails, and trailside museums. These innovations reveal practical possibilities in what might otherwise be only a turn of thought.

NATIONAL PARK MUSEUMS

Collections have been in the making for years at several National Parks and Monuments, and, by degrees, some of them have taken shape as museums illustrating the flora, fauna, geologic features, and history of the local regions. The most advanced of these enterprises are the ones at the Yosemite, Yellowstone, and Mesa Verde National Parks and the Casa Grande National Monument.

Much public interest has been evidenced. The cabin in which the Yosemite collection spent its second season admitted nearly 56,000 visitors in four summer months. At Casa Grande every visitor to the Monument sees the museum. The National Park Service has given recognition to the several efforts and has furnished either temporary quarters, as in the case of the Yellowstone and the old Yosemite museums, or permanent accommodations, as at the Casa Grande Monument where an adobe house was especially erected. Private gifts have added to available facilities and have augmented the collections. At Mesa Verde, one wing of a projected building was financed in this way.

The largest single resource which has come to any of these museums is a fund of \$75,550 made available three years ago, through efforts of the American Association of Museums, for erection of a museum building in Yosemite Valley, purchase of equipment, preparation of initial exhibits, and conduct of studies upon general problems of National Park museums. This gift was granted by an educational foundation in the hope that the construction of a building, designed strictly for museum purposes, in one park would arouse further interest and generosity in respect to museums in others.

The new stone and log building which has now been completed, equipped, and turned over to the Government is the home of exhibits which illustrate the wild life and the geology of the Yosemite Valley and touch upon the ethnology of local aborigines and the history of the white man's coming.

The usefulness of this museum is suggestive of what a similar institution in each National Park would mean. The exhibits catch the attention of many visitors (270,000 during 1927) and serve to interest them in the living things along roads and trails. They enable hikers and motorists, returning from their trips, to answer many of their own questions and to check up on what they have observed. The museum is a boundless source of delight for people who cannot go into the wilds. "Many unable to climb to the timber-line have opportunity to study flowers of the alpine regions. . . . Numbers of people have spent hours, notebook in hand, studying exhibits."

But more than this, the building is headquarters for educational work, or nature guiding, which remains to be discussed.

The evolution of plans for the Yosemite museum led to the creation of a diminutive branch museum on Glacier Point, high above the Valley at a vantage-place from which the main scenic and geologic features of the surrounding country can be seen. Of this and subsequently established *trailside museums*, more is said in a following section.

CAMP MUSEUMS

Camp museums have had their inception and most flourishing growth at the Palisades Interstate Park within the sphere of museum influence exerted from the metropolis. They were, at first, products of Boy Scout activity under the leadership of B. T. B. Hyde who became interested in the possibilities of educational work at the camps on Kanohwahke Lakes. Each summer, small collections of the rocks, minerals, plants, and animals of the park were brought together by the boys, and some of these objects were installed temporarily in tents or camp buildings for reference by those who were working with them, as well as for inspection by any others who might be interested. Some of the more mechanically inclined boys devoted themselves to making shelves, cases, and mounts, while the naturally studious ones identified specimens and prepared labels. Despite the limitations under which the work was carried on, most of the exhibits were pleasing and instructive, and some of them were extremely well executed.

Successive years witnessed the continuation of camp-museum activity with increasing vigor. Each spring, efforts were begun entirely afresh, since it was found that the experience of making new exhibits—however simple—had greater value than the possession of more elaborate ones such as progressive effort would have produced. Of course, a background of experience was carried over from year to year by the leaders, and also by many of the boys themselves, but the material was invariably dispersed each fall. This practice, which is still considered as essential, has assured unslackening appeal to the activity.

The work soon gained a firm footing and the park management determined to extend it. For several years official aid has been given, and now each summer the camp director of the park administration engages a special staff of assistants to lead

museum work on four lakes other than the one where it is well rooted under the Boy Scout ægis. In the spring, one or two young curators—college students or graduates—are assigned to each lake, and they busy themselves until fall in developing exhibits, giving talks to groups of boys and girls, and helping the nature councilors at nearby camps. The Park Commission has erected a small museum shack on each of the four lakes.

In order to avoid the vandalism which results from eager collecting by many hands, and also to offer an object lesson in conservation, the museums make a special point of carrying on their work with the least possible amount of violence to nature. Casts of mammal tracks, prints of leaves, transplanted wild flowers, and temporarily caged animals are used instead of preserved plants and animals. The influence of this practice is good by reason of the healthy interest which it inspires in the out-of-doors quite as much as the attention which it draws to conservation.

Camp museums give special instruction and tests to any campers who wish to qualify for credits. Those who meet the demands of any one section of a posted list of requirements are given a felt "M" that can be worn on a sweater. Four times the amount of work which wins such a "minor M" entitles one to a "major M," and further attainment is rewarded by adding "bars." Examinations are quite informal and are conducted along lines suggested by the following section of the requirements sheet:

1. Be able to identify twenty trees, shrubs, and woody vines in the field.
2. Present a collection of pressed leaves, recognizable leaf-prints, or drawings of the species.
3. Of what use are forests? How can we protect them? What abuses of forests have you observed?

Some of the individual camps on each lake have carried the example of the museums to their own precincts by making small museums for themselves. This, in part, has enabled camp councilors to put nature study on a project basis, and it has added zest by reason of a certain rivalry between camps.

Museum leaders and camp nature councilors are in attendance for the entire season. Most of the children stay for two weeks only, but many of the boys and girls who take up

nature study through camp museum work continue their interest after the return home. Year-round work of Scout troops and other organizations gives outlet for much of this impulse and, in some instances, public museums have discharged the same function through their study clubs, or "hobby clubs." Almost any museum can count upon having as much energy as it cares to put forth in this direction engaged productively. With reference to Girl Scouts, one museum reports: "In the fall the Scouts were too deep in the work to stop, so they formed a Museum Club at the Children's Museum, where they held monthly meetings, and they were busy all winter organizing Scout Museums in the troop rooms all over Brooklyn."

NATURE TRAILS

The idea of nature trails was also first carried out at the Palisades Interstate Park—in the Harriman Section, where the American Museum of Natural History established its Station for the Study of Insects in 1925. Dr. Frank E. Lutz, curator of entomology at the Museum, and director of the Station, is responsible for the development.

The original nature trail* was a mile of woodland path along which trees, shrubs, herbs, insect workings, and a few temporarily caged insects, reptiles, and mammals were labeled for the benefit of whoever might choose to come and observe. The trail was divided into two half-mile sections—each having the form of a loop. The first section, or so-called *training trail*, was designed to convey information. Linen tags with brief legends were attached or placed in nearness to hundreds of features along the way. Dr. Lutz writes, "... the labels were more 'chatty' than many scientific institutions think is compatible with dignity. Then, although few of the visitors realized it, the labels were so written that a given subject was opened simply, became more complex, and was closed by a short summing up or by a few questions. Such an educational method was possible because the visitors (at least on their first visit) went along the trail in the 'right' direction, and they went in the right direction

*This trail is described fully in: *Nature Trails—An Experiment in Outdoor Education*. By Frank E. Lutz. Miscellaneous Publications, No. 21, The American Museum of Natural History, 1926, 36 pp. A later development is reported in: *Signs along the Trail*. By William H. Carr. New School Service Series, No. 2, The American Museum of Natural History 1927, 28 pp.

because the start of the trail was very evident, but the end, a few feet from the start, was arranged so as to be hidden by trees." A sign at the starting-point invited the passing park visitor to enter and revealed the spirit of the place by indicating that "a friend somewhat versed in Natural History is taking a walk with you and calling your attention to interesting things."

The labels—written in waterproof ink—were made on the spot. This gave them spontaneity. Some referred to single objects; others made general statements. All were brief—longer explanations being divided between several consecutive labels. In most instances more than a name was given—informative comments, playful allusions, suggestive questions, and quotations of prose or poetry being introduced.

A number of devices were employed to supplement the labels. Between adjacent related labels, strings were run to lead the reader on. A few celluloid-covered pictures and diagrams were put up. Cylinders of celluloid, with netting ends, were slipped over branches to detain insects. Glass jars, inverted in the grass or covered and set on rustic brackets, were used for the same purpose.

Toward the end of the training trail, labels were attached in pairs, the top ones asking questions and the bottom ones answering them.

On the second half-mile section, which was designated as the *testing trail*, were fifty numbered labels, each one asking a question and all collectively contributing an examination on subjects presented by the training trail. Visitors who wished to do so took pencil and paper and wrote answers to these questions, and the results were rated by one of the persons in charge of the trails. Experience showed that visitors were not only eager to gain information on the training trail but also to put their success to a trial on the testing trail. The highest rating of the first year was given to a boy from a New York settlement camp who got 99½ per cent. "In contrast with an average score of about 80 for teams of city children, some of whom were getting their first taste of real outdoors, but all of whom had worked on the training trail, was the individual high score of 94 made by adults depending on their general knowledge."

Despite the fact that individuals and parties went over the

trails unattended, there was no vandalism. This surprising absence of destructive act—where careless or wanton breakage or trampling would have been so easy—was looked upon as a result of friendly requests, reiterated in the labels, to be careful.

In two years since this project was carried out, the nature-trail idea has spread to many camps, and also to city parks and at least one botanic garden. It was estimated recently that no less than two hundred of such trails were made last summer. To all indications the plan is now well established as a method of outdoor instruction; it is one which commends itself especially to museums.

TRAILSIDE MUSEUMS

When the American Association of Museums secured the aforementioned grant on behalf of the museum in Yosemite Valley, a committee was appointed to administer the fund. Through the work of this Committee on Museums in National Parks, a new plan of outdoor exhibition was evolved. It hinged upon the conception of a museum—or perhaps a museum exhibit—of a type for which the name *trailside museum* was coined. These developments were due in large measure to the thought and efforts of Dr. Hermon Carey Bumpus, Chairman of the executive group of the Committee.

In the beginning, the trailside museum idea was born of the conviction that a National Park is itself a museum—a vast permanent exhibit illustrating natural law, supplemented by an ever-recurring series of seasonal temporary displays. Seeking means of interpreting these nature-made exhibits to the public, the Committee conceived the plan of erecting shelters along the roads or trails at appropriate points and installing in each of them a few specimens with labels, a chart or two, and perhaps a model—all relating to natural features near at hand or in sight, and all elucidating these features just as labels, diagrams, and supplementary models elucidate master exhibits under roof.

The idea was put into operation forthwith. At Glacier Point, 3,200 feet above Yosemite Valley, people tarried daily beside the trail to view nature's grand display. The exhibit invited the preparation of a worthy label. Accordingly, plans were made for a permanent structure to contain descriptive matter, objects, photographs, and a telescope. The Yosemite Natural

History Society liked this idea and provided the funds with which the first trailside museum was created.

This scheme was soon recognized as one of wide applicability, since everywhere the out-of-doors furnishes opportunity—though not so striking opportunity as that offered by a National Park—to explain the abounding things of interest in nature. It appeared that any museum might locate trailside, pathside, or roadside exhibits at favorable points on park paths, along highways, or wherever circumstances might suggest. It was realized that such undertakings would call forth a wide variety of contrivances such as tree-labels, signs on stakes, roofed signboards with attached objects to illustrate the text, sheltered counter exhibits, shacks with appropriate installations, and little branch museums. The new problems were seen to be numerous and complex.*

To keep pace with the progress of its thought, which had thus been carried far beyond the bounds of National Parks, the Committee changed its name to Committee on Outdoor Education and, in its larger capacity, approached the foundation which had financed the work at Yosemite and secured funds for the erection of two more demonstration trailside museums—one in the East and one in the West.

The first of these demonstrations is now well launched at Bear Mountain near the administrative center of the Palisades Interstate Park. The area set aside for the experiment is rich in the wild life of the region and gives abundant evidence of geologic action. Its character in these respects suggested that the trailside museum to be located there have application to all of the features near at hand. The small stone building planned to discharge this function also provides modest laboratory and residence accommodations for the man in charge. Construction is now well advanced under a grant of \$10,000.

Through the influence of the nature-trail-makers in the park, a special trail was created in conjunction with the museum. This trail winds about through the museum plot and, in its course, leads through the building from front to back. In one sense the museum thus becomes that part of the trail where

*The situation was sketched in a general article: *Relation of Museums to the Out-of-doors*. By Hermon Carey Bumpus. Publications of the American Association of Museums, N. S. No. 1, 1926, pp. 7-15.

perishable objects may take refuge and where the explanatory matter on the trail may be summarized and amplified.

The main trail, which passes along the edge of a small pond, is developed in explanation of flora and fauna. "Another trail will feature the geological phenomena of the Highlands, with labels and signs explaining the formation of the ancient Archæan rocks of the region, the dynamic stresses and metamorphism which they have undergone, the origin and development of the Hudson Gorge, which is here 2,000 feet deep, including the deposits on the bottom of the river, and the geological principles which they illustrate will be indicated by pointers from an appropriate label or signboard."

Circumstances have lent themselves to further elaboration of the plan. An element of history has entered. "The museum building is close by the star-shaped redoubt which was the main work at Fort Clinton, and whose earthworks are still well preserved. The trail will lead to the outer works and the gun emplacements hurriedly built by General George Clinton in the defense of the Hudson. Pointers will direct the attention of visitors to the details of the conflict, from the Timp Pass, at the west end of Dunderberg, through which Sir Henry Clinton led the British to the attack; Fort Constitution, on the east side of the river, where the British feint attack drew the bulk of the American forces and depleted the garrisons of Fort Clinton and Fort Montgomery; the abattis in front of Bear Mountain Inn, where the assault began; the river where Commodore Hotham's ships bombarded the American forts and burst the chain across the Hudson from Fort Montgomery to Anthony's Nose, up to the final struggle, in Fort Montgomery, north of Fort Clinton, across Popolopen Creek."

The project initiated by the Committee on Outdoor Education has been carried forward largely under a coöperative arrangement between the Palisades Interstate Park and the American Museum of Natural History. There is a resident curator—a member of the educational staff of the Museum.

With a balance of \$10,000 from the grant which financed this demonstration, the Committee is now making another trail-side museum in the Grand Canyon National Park—at Yavapi Point on the south rim. Here again the environment shapes the plan. A large part of the canyon—an unexcelled spectacle of

geologic action—visible from the Point, and a score of single features that can be indicated with pointers or fixed telescopes, form a lucid and convincing series of exhibits. The chief problem is to find ways of expounding without distracting by the intrusion of man's devices.*

THE FUTURE OF OUTDOOR EXHIBITION

The four separate experiments which have been described are closely related in purpose. Though each supplements the others, they do not resolve into a single plan of action, but instead, they reveal as many nuances of method as there are combinations of conditions.

At bottom, only two elements seem to enter into the various possibilities—elements which, for present purposes, may be termed the *outdoor exhibit* and *outdoor museum*. The former is thought of as an object, or group of objects, left where nature has produced it and labeled in some appropriate way; the latter, as a structure located close to nature and holding specimens of its environment, together with explanatory matter. An *outdoor exhibit* may be no more than a plant with a tag attached, or no less than a canyon with a label-sheltering lookout beside it. An *outdoor museum* may be anything from the simplest shrine with its few objects to a building of some size. The specimens which it holds and interprets may be from the very immediate neighborhood or from the local region.

There are arbitrary definitions, but they call attention to the essential difference between explaining nature by labeling it and explaining nature by showing labeled samples of it. The former is an innovation; the latter differs from traditional museum exhibition only by degree of removal from the natural habitat. However—and this is the import—outdoor museums will surely make their impression upon public museum policies as to location, site, centralization, branches, size, scope, and even purpose; their influence may penetrate deep into the administrative structure of established institutions. Outdoor exhibits, on the other hand, can directly touch museum method only; they offer a technique which may be grafted on to educational work wherever it will thrive.

But apart from any effect which they may have upon other

*An outline of this project has been published: *Inspiration and Education in National Parks*. By John C. Merriam. *National Parks Bulletin*, July, 1927, 9: pp. 3-5.

things, there is the question as to what will be made of outdoor exhibits and outdoor museums themselves. Doubtless exhibits will be created in a multitude of forms. They will be contrived singly at accessible points where nature offers lone objects of special interest. They will be developed along paths in museum grounds and city parks and along trails in wilder areas. They will be arranged along highways, and there they will be of such size and character that the autoist may read as he rides. Outdoor museums promise to make their appearance in city parks, in suburbs, and in more primitive areas—especially in such of these as are publicly owned. Doubtless many of them will be simple or ephemeral things; others will be permanent and quite elaborate. Of these, also, highways will have their share at places of special interest and at stop-over points such as public tourist camps.

There are two general questions which one asks of the future: first, how effectively can museums apply the new idea by concentrating upon a few practical plans of work; and, second, how extensively can these or related plans be carried out by organizations of other kinds? So far as museums are concerned, it seems reasonable to hope that every one which devotes itself to public service in the field of science will adopt outdoor exhibition as part of its program and will establish outdoor museums under a policy calling for the creation of branches. Recognition is already being given in several quarters to these possibilities, and numbers of museums have property that would lend itself admirably to such plans. One of the smallest institutions in the country, the Chamberlain Memorial Museum at Three Oaks, has a preserve on the sand-duned margin of Lake Michigan, and, as another instance, the Santa Barbara Museum of Natural History owns a forested bird-refuge.

As to extension of the work through adoption by other organizations, that will follow naturally and will take momentum partly from the success with which the museums bring thought and energy to bear. The interest which Scout troops, summer camps, and State and National Parks have already shown indicates that the future will witness a widespread borrowing of museum methods.

A notion which arises as a corollary to all of this is that museums in cities have opportunity to develop in the hearts of their communities what might be called museum parks—tracts

in which natural conditions can be preserved or given opportunity to restore themselves. One pictures a haven where trees grow in profusion and undergrowth is dense and undisturbed; where a stream, though perhaps artificial in its source and outlet, has free course for a few hundred yards and gives being to a little pond; where flowering plants and ferns and mosses thrive; where birds and the creatures which inhabit field or shaded nook or brook or pool may live. A narrow trail winds through this oasis on the urban desert. It leads under dense, shading growth, out on the open sunlit grass, across the brook and around the pond.

People would come to this haven to stroll along the path. For the children it would be a rare treat. "The country dweller has very little conception of the limited horizon of thousands of children in congested parts of the city. Many of them never get more than a few blocks from the place where they were born. The school building is the limit of their travels. The dog, cat, and the horse are the only animals they have ever seen. The vegetable-market window or the flower-laden pushcart represents their knowledge of growing things." The experience of visiting a museum park would be memorable.

Although possibilities have been discussed here with reference to the field of natural history alone, it should be noted that they have a bearing upon that of history. In every region there are lands and landmarks of great historic interest and meaning which should be interpreted to visitors by just such means as have been under scrutiny. Beginnings have been made—notably, for example, in New England by the Society for the Preservation of New England Antiquities. Colonial farms, battlefields or Indian village sites offer alluring invitations to the open, and for some minds they are the key that can release interest in outdoor pleasures as against those to be found in books and collections. History museums have here a fertile field to cultivate.

NATURE GUIDING

For the better part of twenty years, organized conducting of nature-study excursions has been known as nature guiding.*

*Bryant, Harold C. Nature Guiding. Bulletin 17, The American Nature Assn., 12 pp. with a bibliography. The history of nature guiding is traced from its beginning at the hands of natural history societies and museums, through its introduction under hotel management in Estes National Park, to its recent widespread popularization.

The practice has received its greatest impetus from adoption in the National Parks, and at present it is being extended rapidly in this field and also in State Parks.* Under the usual arrangement, trips are scheduled at regular times each day or week, and are conducted by field naturalists who have special qualifications and training for the work. As many as fifty persons sometimes present themselves, but smaller parties are more successful.

The pleasure is not alone for visitors to the great open spaces, however. From many of our cities parties go out regularly to take nature walks through parks and suburbs. Museum leadership is partly responsible, but it is quite likely that throughout the country hundreds of such expeditions are conducted each week by other agencies. A newspaper of the hour announces in its heading: "City Has Nature Study Club. Each Sunday Plainfield folk hike to the woods to observe birds and plants." The item indicates that the trips are well attended. "The assembling nature lovers divide into groups, and off they go into the woods, each with a leader well versed in the animal and vegetable lore. These leaders are townspeople, often men of wealth, who have taken to nature study as a hobby. Their time could not be bought, but they contribute it willingly in order that they may pass on their knowledge to their fellow-citizens, who, in their turn, show themselves eager to learn. The Watchung Nature Club started out as an adult organization, but soon the need became apparent for a children's department, and steps were taken to meet the demand. Great results are looked for from these labors." This is but one instance of the spontaneous interest which everywhere awaits leadership.

Nature guiding in National and State Parks is quite outside the lives of most city dwellers, and, for some, participation in the activities of local clubs is inhibited by social restraints—real or imagined. However, museums should be able to overcome both of these difficulties for the nature lover in any walk of life. Several museums now do this. The following announcement, taken at random from the Bulletin of the Natural History Museum, San Diego, gives a case in point:

"Saturday, October 6.—Birds of the Seashore. Leader,

*Torrey, Raymond H. *State Parks and Recreational Uses of State Forests in the U. S.* 1926, 259 pp. See especially pp. 57-68.

Clinton G. Abbott, Museum Staff. Party meets in front of Hotel del Coronado at 10. Connection may be made by Coronado ferry trolley leaving Broadway and Fifth Street at 9.30. The walk will end at noon, but some persons may desire to carry picnic lunches and remain on the beach.

"Saturday, October 13.—Flowers and Trees of Balboa Park. Leader, Carroll DeWilton Scott, Supervisor of Nature Study, San Diego Public Schools. Party meets in Natural History Museum, Balboa Park, at 9.30. The walk will end at noon.

"Saturday, October 20.—Native Shrubs of the Chaparral. Leader, Miss Fidella G. Woodcock, Museum Staff. Party meets at terminus of Ocean Beach trolley line at 9.45. Take Ocean Beach trolley leaving Broadway and Third Street at 9. The walk will end at noon, but some persons may desire to carry picnic lunches . . . etc."

More museums should exert themselves in this direction. The work is greatly needed in all communities, and in large cities it is needed on a rather large scale, provided for several parties to start simultaneously from different points each week-end. If the task should prove to be beyond the powers of museum staff members, guides could be employed especially for this part-time work, or volunteers might be enlisted.

With the popularization and attendant extension of nature guiding there has come an embarrassing lack of persons qualified to carry on the work. In recognition of this and related situations, New York University has established a summer camp school in the Palisades Interstate Park,* organized instruction has been given by nature guides in National Parks, and a number of other training projects have been launched.

Under the management of museums—the agencies which seem most fitted to offer this instruction—the first school to appear is the Allegany School of Natural History which was established recently in the Allegany State Park, New York. This is a coöperative undertaking of the Buffalo Society of Natural Sciences and the New York State Museum. According to its announcement for the summer of 1927, the school has a teaching staff of six men and offers intensive field instruction over a period of eight weeks in six subjects, including park

*Nash, Jay B. The University at Camp. *Camp News*, March, 1927, I: No. 7: pp. 3-4.

management as well as treatments of geology, botany, and zoölogy. Because of its several highly appropriate features this undertaking commands attention.

With the advent of reasonably adequate facilities for training—which are sure to come, and which may come largely at the hands of museums—there will be progressive acceleration of outdoor education work in general. Nature guiding is now largely a summer occupation, but it may become a year-round calling. Besides openings in parks there are already chances for employment as guide at public or private resorts, or as camp nature councilor, Scout naturalist, teacher, or supervisor of school nature study. Opportunities are increasing daily, while museums and other interested agencies are rising to the situation.

Trailside Conversations

By WILLIAM H. CARR

(Part I of a Report of the American Museum of Natural History,
New School Service Series, Number 4, 1930.)

ALL trails leading through the woods, along the margins of lakes, or over the tops of mountains, are, in effect, nature trails. They serve as guides to bring men, women, and children into a healthy and voluntary contact with nature. Unfortunately, however, not many of them aid in bringing nature to the people. The purpose of labeled nature trails and of trailside museums is to give thousands of visitors an opportunity to gain a real conception of the meaning of "nature mindedness" by providing them with simple, visual means of becoming better acquainted with the wonderful world in which they live.

The Nature Trails and the Trailside Museum, maintained by the American Museum of Natural History, in coöperation with the Commissioners of the Palisades Interstate Park at Bear Mountain, New York, have been visited by more than 200,000 people since 1927. Many other organizations throughout the United States have seen the value and the importance of this form of nature education and support similar projects, all with the one purpose of stimulating a more lively and lasting interest in the out-of-doors on the part of the American public.

The dwellers of cities are turning their eyes, their steps, and their mental perceptions to the woods, the fields, and the streams. In ever-increasing numbers they are availing themselves of the many opportunities that enable them to spend hours in the open. State and National Parks, city parks, and country parks are all being used by the often-mentioned, but little understood, "general public," who have learned to journey from the crowded centers of population in search of normal recreation and fresh air. The Department of Public Education of the American Museum has followed in the footsteps of the people of Greater New York City in their exodus to the open, thus keeping pace with the times.

As we sit here in the Trailside Museum writing, we can look out into the large room and see many people who have come from a considerable distance to visit Bear Mountain. Many

fingers, tapping on the glass of the rattlesnake cage, have aroused the captive. Its tail is vibrating rapidly and the "buzzing" may be heard everywhere in the building. Just outside the window a cicada is singing, and its lazy drone almost duplicates the sound made by the rattler.

Seven people are gazing at the three placid bullfrogs in their large cage.

"They aren't alive, they are stuffed!" announces one man.

"Of course!" remarks another. "They are made of wax; not a very good job either!"

At this point one of the frogs jumps clear across the cage and lands with a thump! Five of the seven people laugh; two are silent. We are reminded of the owl in the barber shop.

The crowd within the Museum is increasing in size, for Sunday has come to the Nature Trails on the banks of the Hudson. It is a warm afternoon in August. The rounded, green dome of Bear Mountain is silhouetted against a blue sky that is absolutely cloudless as far as one may see it up and down the river.

We walk out to the door in time to greet a perspiring man who tells us that he is from England.

"My visit to this country is very brief," he says, "but I have decided to spend one day studying this nature project. I read about it some time ago."

"I wish," he continues, "that you would be good enough to tell me all about the Trails and the Museum. I have followed this Trail for about half a mile and have been interested in the labels and exhibits. Could you go with me?"

We have had similar requests from persons who have come from many different parts of the world, many of whom have been farther from home than this English gentleman. Of course we will go!

Our guest decides to see the Museum, for it is cool and very inviting on such a warm day. He walks over to the snake exhibit first, as do the majority of persons who visit the building.

"Why do you have live snakes here?" he asks.

"Well," we reply, "these snakes attract a great deal of attention. People have read and have been told so much about snakes that they are interested in them for various reasons. Here is a fine opportunity to do a good bit of educational work,

and, at the same time, to utilize the reptiles as a serpentine lode-stone to draw the public to other exhibits as well.

"I like the cages," says the Englishman, "but I do not like the snakes. As a matter of fact, I do not believe that many people have much affection for them. Yet, as you say, they attract one at any event."

"It is for the very reason that people do not like snakes that we have them here," we resume. "The story of popular dislike for reptiles is a long and a sad one. We realize why this dislike has spread. We also know something of the value of snakes and of how perfectly inoffensive they are. That is why, by means of these labels and charts, we try to dispel a bit of that fear and also endeavor to give snakes a better reputation, a thing they are sorely in need of."

The visitor from Britain has here paused in front of the blacksnake cage where three beautiful "pilots" are resting upon the branch of a tree, like so many bands of jet rubber hose. He looks down at the label and reads it aloud.

REMARKS ABOUT THE PILOT BLACKSNAKE;
MOUNTAIN BLACKSNAKE

Size.—The Pilot Blacksnake is one of the largest snakes in this section of the country. Specimens have been captured that were over seven feet in length.

Habitat.—Although often found on rocky ledges on the sides of mountains, the Blacksnake also likes the country that is well watered and that has open timber.

Speed.—Blacksnakes can travel as fast as a man can run. When alarmed, they dash through brooks, bushes and rocks at a remarkable rate of speed.

Habits.—These snakes may be easily tamed and become very gentle. They may be fed upon small rats and mice, frogs or other snakes.

DO NOT KILL THE PILOT BLACKSNAKE. IT IS ALL
TOO FAST BECOMING SCARCE

"Quite a long label, that," remarks the reader. "I suppose that people read it, though. I like the idea of giving a little more information than one would ordinarily expect to find."

"Yes," we answer. "We try to give something of a story with every label, both in here and upon the Trails. The exhibit

is only half the story; the label is the other half. People who are interested enough to read a label do not object to its length within reason. Of course, the wording must not be too long."

The visitor examines several more labels that have but few words. He studies them carefully and then asks, "What governs your label writing? I would like to know more about how you compose them. I know that the idea is to give as much information in as few words as possible, but how do you decide upon the proper subject material for each sign?"

This question is one that interests us a great deal, for we have spent a number of years in an effort to discover just what the public wants to know about things out-of-doors.

"Label writing," we tell our interrogator, "is certainly one of the most important considerations in the building of a Nature Trail and of a Trailside Museum. In the instance of snakes, we find that before we may write adequate labels and make good charts, we must first study, not only the reptiles, but the people for whom the exhibits are prepared. The reading of accurate accounts of snakes, in books, written by reputable naturalists, is quite often necessary for the acquisition of facts. Although our own field experience with local snakes is a fair one, we find it wise always to 'check up' our own observations before telling others about them."

"That is all very good," says the listener, "but I should say that there will probably never be a book written that will answer all of the questions asked of one in relation to snakes, especially when one exhibits live specimens."

"Perfectly true," we assure him. "The questions that one hears about snakes show very conclusively that here, if ever, some real facts are needed. For instance, we have given many snake lectures, using live specimens as subjects, and almost invariably the spectators will make remarks like these:

"'It wiggles so! I can't bear to touch it. I never could!'

"'It gives me the creeps.'

"'It's so slimy and dirty!'

"'Oh! Look, Mabel! Look at its stinger. Isn't that terrible!'

"'Look out, Homer. Look out! All snakes are poisonous!'

"'The hoop snake. Oh, yes! I had one chase me for more than a mile, one time.'

"These common fallacies about serpents are widespread and

out-of-door museums may do much to correct them. At the conclusion of a snake lecture it is not at all uncommon to have the attitude of the majority of the listeners completely changed. Then we hear:

"'Why, it doesn't really wriggle at all, does it?'"

"'I always thought that they were slimy, but now I can see that they aren't.'"

"'How pretty it is! It has a regular color pattern, hasn't it?'"

"'How often do you give it a drink?'"

"'Mother, may I hold it for a little while?'" "

The Englishman is interested.

"I suppose," he says, "that the most satisfactory methods of toppling over this snake-fear and of doing away with a certain amount of ignorance is to lecture with the reptile, to give actual demonstrations with them?"

"Demonstrations are very valuable," we answer, "but it is not always possible to give them, and so we have to depend upon the labels, to a large extent, to solve the problem. This 'Fact and Fiction' chart is read by many people. Some of the comments made by the readers show that the chart has done its bit in correcting popular misbelief about snakes."

We leave the snakes and wander over toward a series of charts that are standing in individual frames upon the redwood table. On the way we have paused to look at the aquarium table, the 'current event' blackboard, and the model of a beaver pond. The British gentleman has his notebook in his hand and is copying various labels as he walks. We have just discovered that he plans to operate a similar nature museum in England. Like many of his countrymen, he is a bit taciturn and does not tell us about his plans until he has been with us for some time. He now tucks his book away in a side pocket, carefully replaces his pencil, point up, in a breast pocket, and resumes his questioning.

"I have read," he says, "that you did not like to exhibit mounted specimens of any sort in an out-of-door building. They would be very attractive here but I can see that there would be no room for them. After all, the charts, models and living animals are much more in keeping with a building like this one. It isn't a Museum at all, is it? Could you not think of a better name than 'Museum'?"

"We have tried to," we reply. "We have earnestly tried to think of a name for the building, for, as you have observed, it is not a Museum, but a part of the Trail. 'Trailside Museum' seems to answer the purpose."

The notebook has appeared, again, and the busy pencil is copying the subject material upon the charts on the table. These charts have been copied by many people this year, for they have to do with an idea as well as with mere nature facts. There are seven charts in the series. The title upon the sign that hangs above them all is ENEMIES. The six charts tell of the "enemies" of birds, mammals, reptiles, fish and frogs and toads. In the center of the table is a large label that reads:

THE IDEA

Upon each of the 'ENEMY' charts, you will notice that *MAN* is the principal offender in every case. *MAN*, with his civilization, has invaded the forests and the plains alike. He has driven the wild life from the great majority of its former retreats. In order to preserve the animals of today, it becomes our duty and privilege to provide sanctuaries for them. Above all, we must teach the people of America to protect their priceless heritage, the wonderful natural life, both plant and animal, that should be theirs for all eternity.

Once more the pencil rests, and the writer takes advantage of the bench in front of the table. We sit by his side as he says, "Tell me about the charts in the building. I would like to know how they are made and how one would go about making new ones. It would appear that, although the charts are good, they would nevertheless have to be changed from time to time."

"Now you have touched another subject to which we have given much thought," we tell our visitor. "Charts in a small room like this one have, indeed, to be changed frequently. Many of them follow the seasons. If they are colorful and attractive they will interest many people. In making all charts we try to remember that we must take a bit of a lesson from the all-powerful advertising people of today, who have brought their art, if you would call it that, into the realm of 'big business.' These professional advertisers have learned how to approach the public, how to catch and hold their attention, and how to make space count to its fullest measure. If we

would attract the public, we must also study their likes and dislikes and plan our charts accordingly."

"These advertisers are great fellows," the Englishman agrees; "they certainly do know how to catch the eye with their slogans and captions. They are able to describe some inconsequential little product in such a manner that fortunes are soon made for the producers. You spoke about the 'likes and dislikes' of the people. How do you learn what these are?"

"In the first place," we return, "we must know the things that the public expect to see. We know that they usually have the same general ideas and the identical questions to ask in relation to nature. We therefore cater to these 'whims' by first answering these questions, the questions they either would ask or would like to ask. We find that in preparing our charts to illustrate various phases of nature, we must be able to satisfy the original queries and then lead our information into directed lines of thought. In other words, these charts must start upon the 'ground floor' and work up. As we have said before, what one wishes the public to know, and what they *want* to know are two different things."

"Very true," says the British guest, "but to be more specific, tell me how you came to make that life-history chart of mammals over there."

"Well," we explain, "it is very evident that the life history of mammals is a fascinating subject. As you may see, photographs of young mammals are always appealing. Notice how the woman who is looking at the chart reacts to the picture of the baby rabbit in the little girl's hands. She thinks it is 'real cute.'"

"We know that this is about what she and the great majority of our visitors would think about the picture. The appealing side of any animal is a good thing with which to start interest. It is wise, however, to discover in just what way the appeal is made. If a picture of a baby raccoon, feeding from a human baby's nursing bottle, arouses a smile upon the face of the beholder, one may make a fairly safe conclusion that the nursing bottle has a great deal to do with it."

"It has something to do with the helplessness of all babies, don't you think?" asks the guest. "I believe that people often exhibit what one might call a 'superior approval' when looking at these pictures of baby animals."

"You are right," we agree. "That is why, in the instance of the young raccoon, with its milk bottle, we may readily tell of the fact that one of the characteristic traits of all mammals in the vicinity has to do with the nursing of the mother and the drinking of milk. This fact, in turn, may very well lead to other habits of land mammals, such as walking on four feet, and so on, until at last you have led the visitor from the baby with its bottle to perhaps the adult raccoon washing its food in a stream or peeking from its tree-trunk home."

"You remind me of a little jingle about mammals that I saw once," laughed the Englishman. "It went something like this:

'Birds have feathers to fly through the air,
Reptiles have scales in part,
Mammals are more or less covered with hair,
And suckle their young at the start.'

"*There* is a good rhyme for you! Why not put that in a mammal chart?" he asks.

The afternoon is going quite rapidly and we have not yet visited the Nature Trails. We remind the note-maker of this and he is at once anxious to see the "Hidden Label Trail." We walk up towards Bear Mountain Bridge until we come to a small, open field where this particular Trail begins. Our visitor here examines the covered signs and walks off down the Trail. We have to say good-bye, for we must return to the Museum. He promises to stop by and see us again on his way to the boat which will bear him back to New York.

Outside of the Museum building there is an easel upon which are placed photographic enlargements of the moon in its various phases. A group of children has gathered about the pictures. One of the eldest is reading the explanatory labels aloud. We walk quietly up and listen for a few minutes.

A little girl is much interested in one particular picture that shows "mountains of the moon."

"I didn't know that the moon had mountains," she says. "Do people on the moon have to climb those mountains?"

"No," answers the older girl, "this sign says that there are no people on the moon. There's no atmosphere for them to breathe. Nobody could live there."

"I don't see why not," persists the little questioner. "Anyway, my mother said there were people up there and she knows!"

"Was your mother ever on the moon?" asks another girl with a smile.

"No, neither was yours! But she told me once that the 'man in the moon' was made by the houses of people up there."

At this point in the lunar conversation we walk over and talk to the children. We explain that there are no houses on the moon, and that the "Old Man" is represented by the mountains. The little girl is still loyal to her mother, however, and wants to know what we mean by "atmosphere." She is about twelve years old and has a very keen expression about her eyes. We lead her to a chart that exhibits various types of clouds. We tell something of the story of what we mean by atmosphere. When we have finished, our young listener says:

"Oh! You mean 'air' when you say atmosphere. Why didn't you say 'air' on that sign under the picture of the moon? Of course I know that people can't live without air! Maybe mother didn't know that there wasn't any air on the moon!"

We go out and remove the "atmosphere." The sign now reads "air." We stand corrected!

As we enter the building, a woman approaches us and says: "Won't you please come here and help this little turtle to its feet? It is turned upon its back and I am afraid that it can't turn over without some assistance!"

Soon the tiny wood tortoise is happy, for we have carried out the woman's request. The mere fact that she is enough interested in turtles to wish them comfort pleases us.

In front of the live salamander exhibit a large group of visitors are listening to one man who apparently is getting a good deal of enjoyment from being listened to. He is of the type that likes an audience and will talk as long as he can hold them, never showing any particular regard for truth in his statements. We join the crowd and listen, too, for a few moments.

"These lizards," he was saying, "are the kind you drink in spring water sometimes. My father drank one once and the doctor told him that it would live in his stomach for a long time and finally kill him."

A shudder passes through the feminine portion of the group and the orator, observing this, continues with relish.

"Yes, the doctor made him get rid of the lizard right away. These lizards are poisonous."

"Why didn't the lizard poison your father?" asks one woman.

"Oh," replies the man, "the lizard lives by the spring just waiting for a chance to get into somebody's stomach. It wants to get there and live. You don't suppose it would poison anybody unless it had to, do you?"

There is no answer to this question and so we work our way to the front and spend the next few minutes in correcting a few of the man's statements, taking pains not to embarrass him by so doing. We then read the sign in front of the exhibit which says:

SALAMANDERS ARE NOT LIZARDS

Lizards have scales and belong to the reptile family. Salamanders are amphibians and are very close relations of frogs and toads. They have no scales. Their bodies are covered with a somewhat 'slimy' naked skin as you may observe by looking closely.

"What do you mean by 'amphibian'?" asks the deposed narrator.

We read another label that answers his question.

WHY AMPHIBIAN?

Some *aeroplanes* are able to descend either upon land or water. They are called *Amphibian planes*. Salamanders, during various stages of their lives, live both in water and upon the land. They too are amphibians!

We then tell of the fact that salamanders do not have poisonous bites, and at last convince the man that his father's doctor must have been mistaken. We tell him that it would be as much to the salamander's advantage to stay far from human stomachs as it would be to his father to avoid "lizard doctors."

Back in the office once more we sit down at the desk and review some of the events of the afternoon. Indeed, all of our experiences have been "events" that are valuable to us in many

ways. They consist of bits of enlightening conversations with the public and observations that we have made as to the relative usefulness of certain exhibits. New ideas, new methods, and thus general progress are all the direct result of our contact with the people. In our efforts to discover in what channels their interests lie we have but to mingle with the crowd, listen to their remarks, and study their actions.

As it is our aim to provide a definite educational activity for our visitors, we must first place ourselves on a plane with them and build our work from their viewpoint, as well as our own. Books do not teach us these things half so well as do the people for whom and about whom the books have been written. A wealth of stimulating experiences awaits the nature museum director who learns to be one with his public. If we were to be aloof, to plan our exhibits with only our own ideas for background materials, then would our guests be disappointed. As a matter of fact, the Bear Mountain Nature Trails and the Trailside Museum have been planned as much by the public as by the actual builders.

This morning we walked over the Nature Trail with a well-known scientist from a distant university. It was perfectly obvious to us that he did not approve of several of the labels upon trees and plants along the path. We bided our time and then asked him directly to what he objected.

"Why," said he, "They are too simple! You have printed things upon these signs that even children know. It occurs to me that your visitors would want you to give them a little more credit for their intelligence. My little daughter would be amused by some of these labels."

We considered all this as a distinct compliment to the Trails, for we realized that for one university professor and one university professor's daughter, there would be ten thousand people who would not be insulted by the labels that our friend objected to. We knew his life had been among students, that he had, in all probability, never spent many hours, week in and week out, with the type of persons to whom a college education is utterly unknown. Of course, we try to satisfy our many true nature students as well, but we shall never be content unless the majority of our labels and exhibits are arranged for the majority of our visitors.

Informal, yet not undignified methods of teaching nature out-of-doors seem to be the most desirable. A direct personal appeal, made by an honest, straightforward means of approach and by the giving of absolutely correct information at all times, seems to be the system by which nature interests may best be shared.

When a casual interest is developed into an earnest desire by means of open device to know more, then will good work have been accomplished. We are abruptly interrupted at this point in our thoughts by a small boy who leans on the sill of the "Dutch door" and announces:

"Mister, the door to the skunk cage is open! I just saw two skunks run away into the woods!"

We rush down to the cage but all to no purpose, for the two black-and-white animals have indeed fled to the shelter of the woods from which they came. Looking a bit sadly at the broken cage-door, we reflect that here is one device that proved to be too "open"!

"Too bad," sympathizes the boy who has accompanied us.

"Maybe you'll get some more skunks soon. I am staying at a camp. I'll see if I can't catch one. They come into the cook-house every night."

We thank the young camper for his interest and then go in search of a hammer. Even though the animals have gone, the cage must be repaired. Nature Trail work is never done. There is ever something to be improved, even though it be only a skunk cage!

The boy follows us.

"Mister," he says, "I caught three of those things you call 'salamanders.' I have no place to keep them. What can I do?"

"That is very easy," we tell him. "Come with us to the workshop. We will give you some wood, wire, and tools, and show you how to make a cage just like the one you saw in the Trailside Museum. Many boys, yes, and girls, too, have built cages at our Trailside Workshop, this summer."

"That's great!" exclaims our companion. "I'll make a cage and take it to camp where all the fellows can see it! Can you tell me how to take care of them, too?"

We have reached the workshop by this time and all of our young friend's questions have been answered. Soon he is busy

upon the construction of his cage. We leave him to his work and return to mend the skunk cage. The boy's happy face goes with us.

There is great satisfaction in giving to others that practical sort of aid that results in things actually accomplished. If we have been able to create in the mind of this boy something of an abiding interest in nature then will our day have been well spent.

State Park and Forest Sanitation

By JOHN C. DIGGS

(Address delivered at the Ninth Annual Meeting, National Conference on State Parks, Clifty Falls, Ind., 1929.)

IT IS not any intention of mine here to give to this conference a technical talk in the matter of sanitation but to seek to impress upon those interested in the success and growth and the increased attendance of a State Park or Forest the necessity that sanitation be given primary consideration along with matters relating to the comfort and convenience of guests.

I shall not tell you that it is necessary to provide 5 to 100 gallons of water for each park visitor, or what type of waste-treatment device shall be used, but I shall emphasize that the water-supply must be adequate in quantity and satisfactory in quality and the waste treatment equipment must be entirely adequate to perform the proper function, not only for the average attendance but to serve the maximum crowd as well. Unless the State, or other political body in custody of such a public recreation ground, can and does provide proper sanitation of areas utilized by visitors, the interest of the citizens of the State will be best served by closing the park to visitors.

Sanitation is an art dealing with the design, location, construction, and operation of water-supplies, waste-disposal devices, laundry facilities, and similar human necessities that the spread of disease and sickness may be reduced. Obviously in actual operation there is always a compromise between the ideal and that which is practical under usual operating conditions. An arrangement, however perfect in theory, must be workable in practice; otherwise it is worse than worthless in that it may presume to provide a safeguard that does not exist.

Primarily, the essential points in guarding the sanitation of a State Park are matters of water-supply, the disposal of wastes, disposal of garbage and rubbish, the selection of campsites and their supervision. The treatment of these essentials differs slightly in the ordinary areas of a State Park or Forest.

In the rather highly developed hotel-service area the sanitary service of water-supply and waste-disposal must be worked out after a careful study by a sanitary engineer as for similar

service in a city or town. Such service is usually more costly than in a city where a larger population is provided for. If it is not possible to provide an adequate supply of good drinking-water under pressure for hotel service and an adequate system of waste collection and treatment it will *not* be advisable to provide hotel service.

Tourist camps and cabin groups and picnic-grounds are alike as far as sanitation is concerned. They differ but slightly in the detail of providing and caring for each service. Sites selected must permit proper drainage and be not too close to swampy ground which may be mosquito-infested during wet periods. An attendant should always be in charge of such grounds for cleaning and general supervision. He should be vested with police power to regulate assignment of parking and tenting-sites and to enforce sanitary rules. Signs and placards, pleasantly worded, assist the attendant in maintaining a clean and orderly ground.

A safe water-supply must be provided. If this can be obtained by extension of city mains or other safe supply under pressure, the danger of contamination by local drainage is eliminated and considerable responsibility lifted from the shoulders of the park officials. In any case, frequent inspection of the supply and submission of samples to the proper health authority for examination at regular intervals should be the rule. The best available water-supply should be provided and, if developed within the park area, should be carefully guarded against contamination. Springs should never be trusted unless repeated analyses have shown them to be free from surface drainage.

For the disposal of park sewage, a water-carriage system with flush toilets is ideal. Treatment of the effluent by septic tank or other approved method should follow. Outside toilets, screened against flies, are satisfactory if properly maintained and removed a sufficient distance—200 to 300 feet—from the water-supply. Chemical closets give excellent results if operated not to exceed the rated capacity. If overloaded, as may often be the case, they fail to give satisfactory service.

Garbage-cans with closed covers must be provided and distributed about the park camping-ground and picnic areas. Rubbish-baskets of coarse wire should be well distributed.

Accumulated wastes must be collected daily and are best disposed of by burning. Burial of garbage or feeding to hogs may be satisfactory if it is removed a sufficient distance from the picnic and camping areas. It should never be dumped into streams or lakes.

Continual vigilance on the part of the park attendants is demanded if a sanitary and properly regulated area is to be maintained. The personality of such attendants is a large factor in the behavior of park visitors in reference to observing the rules and assisting in maintaining sanitary grounds. For this reason, after having provided the proper equipment at carefully selected sites, it is essential that extreme care be exercised in the selection and training of attendants charged with maintaining order and supervising the care of the sanitary devices.

Group Camping

By L. H. WEIR

(Address delivered at the Fourth Annual Meeting, National Conference on State Parks, Gettysburg, Pa., 1924.)

ORGANIZED groups or mass camps for boys and girls and for adults have increased very rapidly within the past ten years, and especially within the past five years. Through a study of organized camps and camping conducted by the Playground and Recreation Association of America during this past summer, covering almost the whole of the United States, more or less definite information was secured of between 5,000 and 6,000 organized camps. The large majority of these were boys' and girls' camps. It is known that there are many more. The total attendance in camps of this character is probably somewhere between 800,000 and 1,000,000. Most of these camps are located upon properties either owned or leased by the organizations conducting them. But one of the most outstanding examples of a large group of organized camps for boys and girls and for adults was found in a great State Park, viz., the Palisades Interstate Park, in New York. Allegany State Park, in New York, is developing organized camping opportunities along the same lines as those found in the Palisades Interstate Park. There is no question but that large State Park and Forest reservations are destined to play an important part in providing opportunities for that splendid form of outdoor life represented by the organized camp.

State Parks, in order to function effectively as centers for organized camping, should provide the following natural conditions.

1. An adequate supply of pure water for domestic purposes. What constitutes adequacy varies greatly, depending upon the purposes for which the water is used. If the water is used for cooking, cleansing, and drinking only, there should be a supply that will provide from five to ten gallons per day for each individual in a given camp. If used for all these purposes and in addition for bathing, sprinkling, washing, sanitary flush toilets, etc., an allowance of from thirty to fifty gallons per day for each individual should be provided.

2. Sites well drained, removed from swampy areas, and not subject to overflow. The soil should be firm yet permeable to water. Loam mixed with gravel or having a gravel subsoil is perhaps the best for all purposes. Wooded camp-sites providing a mixture of sunshine and shade are the most desirable from a sanitary standpoint. The site should be so located as to take advantage of prevailing winds. For summer an eastern exposure is generally to be preferred.

3. An immediate area of such size as to permit an orderly layout of the camp and to provide sufficient level ground for a campus and games, courts and sports field. A study of 225 existing organized camps showed that the size of the immediate camp-site comprised an average of about 5 acres. The total camp-site should be much larger than this, however, in order to provide as ideal an environment as possible for carrying on Nature lore, woodcraft and camp craft and other characteristic camp activities. It was found that the tendency throughout the country was to secure larger and larger sites for each individual camp. The average for 226 camps of many different types was a little over 100 acres. Individual camp-sites ranged from 25 to over 2,500 acres.

4. A site including not only sufficient land area but also water for swimming, boating, canoeing, etc. Nearly all camp directors consider water either in the form of a running stream or river, lake or ocean a fundamental requisite for a good camp-site. Many State Parks are lacking in this fundamental requisite. This defect can be remedied as has been done in the Palisades Interstate Park by the creation of artificial lakes. All waters used for water sports should be absolutely free from harmful bacteria.

5. A site that is not too far from the home communities of the campers. Desirable distance ranges from 30 to 100 miles from home communities. However, there are a few camps in the United States that are located as much as 150 to 400 miles from their home communities. One camping organization fixes a principle that the cost of transportation for the camper should not exceed 20 per cent of the total cost of remaining in the camp for a given period of time, say from one week to two weeks. The necessity of having the sites within a reasonable distance of home communities applies only to community or-

ganized camps and not to privately owned camps. Of 141 camps studied during the past summer, the average distance from home communities was about 43 miles. The range was from 1 mile to 300 miles.

6. A site within easy reach of terminal transportation facilities. The average distance from terminal transportation facilities of 234 camps studied last summer was $5\frac{1}{2}$ miles. The range was from direct contact to 54 miles.

7. A site that should be within easy distance from fresh food-supply. Because of the importance of fresh meat, vegetables, fruit and milk in camp diet it is highly desirable to have the camp-site located in a region where such articles of diet can be secured from nearby farms or can readily be transported into camp in first-class condition.

8. A site that is free from poisonous plants, dangerous reptiles, troublesome insects, and dangerous hazards. Reference is here made to plants like poison ivy, sumac, and poison oak, to such reptiles as rattlesnakes, copperheads, water moccasins, to such insects as the malaria-carrying or yellow-fever-carrying mosquitoes, and to such hazards as precipices or steep bluffs overlooking water, dead timber, whirlpools or rapids, etc.

LAYOUT OF CAMP-SITES

The planning of camp-sites is city planning in miniature. It will not be possible to give a detailed statement of factors involved in proper planning. A few general principles only will be stated.

There are three general plans of laying out camp-sites, viz., the military, the council ring, and the topographical. The military plan or very formal layout is too well known to need description. The council-ring plan is a modification of the military in which the sleeping quarters are arranged in a circle or semicircle and the other types of structures located in certain formal relation to them. The topographical plan is locating the various types of structures according to the lay of the land without any formal relation to each other. The topographical plan is growing in favor with camp directors throughout the country.

The highest and driest ground should be selected for the sleeping quarters. Housing for the service staff should preferably be located outside of the sleeping quarter area of the campers.

The kitchen and dining hall should be located from 100 to 150 feet from the sleeping quarters and at least 200 feet from the latrines or toilets, unless the toilets are of the most modern sanitary type.

The latrines or toilets should be located to the rear or right or left of the sleeping quarters and from 75 to 100 feet from them.

No cess-pool, septic tank, or privy toilet should be placed closer to water areas used for domestic purposes or swimming than 100 feet, and a greater distance is desirable, especially if the subsoil be of limestone or other formation forming underground channels.

Wash-houses in camps providing such facilities should be located in close proximity to the sleeping quarters, preferably in the rear, at some point between the toilets and the sleeping quarters, and they should be connected by drains with either cess-pool or septic tank.

If possible, areas occupied by dwellings and all service facilities should be laid out below wells and springs used as sources of water-supply.

Any structure or pen used for the housing or confining of livestock of any kind should be located at least from 600 to 800 feet from sites occupied by the housing units and the kitchen and dining-room.

CAMP STRUCTURES

State Park authorities may do nothing more in providing for organized camps than to prepare the site and perhaps see that there is adequate water. Organized camping in State Parks, however, is greatly facilitated if the park authorities aid in equipping the camp with permanent structures, as is done by the Palisades Interstate Park Commission. There are certain principles governing structures that are believed important from a health and safety and use standpoint.

Sleeping quarters: Several different types of dwellings are used in the organized camps of the United States. Among these are tents, tent-cottages, cabins, and dormitories. In a few favored regions of the United States, campers sleep in the open air.

It is desirable that all types of sleeping quarters have at

least 50 square feet of floor-space and 500 cubic feet of air space per camper. The floors of all permanent structures (sleeping) should be raised from 10 to 18 inches from the ground. All tents should be floored and the floor elevated from 6 to 8 inches above the ground. It is desirable that from one-third to one-half of the wall-space of permanent structures used for sleeping be left entirely open, protected by canvas curtains or by windows on pulleys or hinges or pivots. Wide projecting eaves (24 inches or more) afford protection against storms.

Apparently, the majority of organized camps still use tents for sleeping, but the tendency is to replace them by permanent structures.

In general, each housing unit should be of such size as will properly house the basic unit of organization of the campers, which is usually seven or eight, including the leader.

Dining-room: Dining-space should provide from 10 to 25 square feet per camper. In all permanent camps it is desirable that the dining-hall and kitchen be a permanent structure instead of a tent. For the purpose of ventilation and securing a more natural atmosphere, it is preferable to have all or at least from one-third to one-half of the wall-space entirely open for summer use.

Assembly, Social, or Recreation Hall: Some kind of shelter for general assembly is essential in any organized camp. This may be either a tent or a permanent structure. It is not uncommon to find the dining-tent or hall used as an assembly hall. This is not desirable in permanently organized camps. The floor-space of the assembly hall should provide from 10 to 25 square feet per camper. If it is desired to use the hall for a physical activities program, from 40 to 50 square feet per camper should be allowed. Every assembly hall should be provided with a fireplace and a small stage.

Equipment for Disposal of Sewage and Garbage: It cannot be emphasized too strongly that in providing equipment for the disposal of sewage and garbage every organized camp is justified in sparing no expense to procure the most up-to-date and perfect equipment possible. The very primitive facilities are not desirable unless watched with constant care.

The ratio of toilet seats to campers should be one seat to every ten campers.

Before closing it is fitting that special reference should be made again to the outstanding work that the Palisades Interstate Park Commission and Major Welch, the Executive Officer of that Commission, have done in promoting and supervising organized camps and camping in that great State Park. Some of the outstanding features of this development are:

1. Up to and including last year, 81 camp-sites for organized camps have been provided. The majority of these were created by the construction of artificial lakes. Additional camp-sites are to be provided this year.

2. Every one of these camp-sites has been equipped with the essential permanent structures by the Commission, with excellent sanitary facilities and with water-supply.

3. In some instances the movable equipment has been provided by the Commission.

The methods of financing the equipment of these camps should be carefully studied by every State Park authority.

4. For those camps not desiring to cook their own food, the Commission provides regularly, three times a day, cooked food at an astonishingly low cost.

5. The camps are all under the general supervision of a special camping department of the Palisades Interstate Park Organization. This department, in addition to its inspection and counsel service, provides special instructors in various branches of nature study.

6. Facilities for winter camping have been developed, and this type of organized camping is growing year by year.

7. Transportation from New York City at special rates is provided for carrying campers to the park, and special motor transportation facilities provided to take campers to and from the various camps in the park.

The 81 camps are distributed around fifteen lakes in the park. They have a total capacity of 6,935, a daily average attendance of 5,920 in an eight-week season, a total staff of 714 with a total number of camping weeks of 60,497. As to winter camping, 1,600 guests were entertained at Bear Mountain Inn and 1,400 in cabins throughout the park.

This is an example of the great contribution that State Parks can make to this fine form of outdoor recreation.

State Park Publicity

By RAYMOND H. TORREY

(Address at Ninth Annual Meeting, National Conference on State Parks,
Clifty Falls, Ind., 1929.)

PUBLICITY in any legitimate and dignified forms is as much a necessity for State Parks, Forests, or any of the various State recreation and conservation agencies whose interests are coördinated by the National Conference on State Parks, as any other human activities which depend upon public support or provide facilities for public enjoyment. Park, forest, or conservation officials may put their utmost endeavors into their fields of public service, but if their objectives, efforts, and achievements are not well enough known, they will not receive the appreciation they deserve, and will fail of public and private support that would otherwise come to them.

Publicity in the field of State recreation and conservation is not difficult to secure, if proper efforts are made to obtain it. News of governmental agencies, Federal, State, county, or municipal, makes up a large proportion of the matter in newspapers and other publications, and the most competent and experienced reporters and writers are employed to obtain and interpret it. News of park and forest developments is as important as any other feature of public services, and has become relatively more important in recent years with the growth of demand for recreational outlets. Most editors welcome such news and will give it due place in their columns.

Means and methods of preparing and distributing publicity are therefore the main considerations for park and forest officials and supporters. The question of cost must be settled first, before any program can be launched. It has been difficult in the past to persuade appropriation committees of legislature to include funds for public information in annual budgets, but this condition is improving with increased understanding and appreciation of the value of publicity. The change is apparent in the establishment by several States of official publicity bureaus, to advertise the tourist or business opportunities of their Commonwealths. Such State publicity bureaus are usually willing to include State recreation and conservation

features in their news and feature distribution. The same tendency has permitted heads of important departments to include publicity services in their budgets, or to combine with other departments to employ a competent writer for mutual benefits.

Where public funds are wanting, private contributions may be obtained to finance publicity work, and the results often lead to a more intelligent appreciation of such advertising by legislators and eventual grants of public money for this purpose. Grants by philanthropic foundations, such as those made by the Laura Spelman Rockefeller Memorial to the National Conference on State Parks, for its survey of State Parks and Forests and its two publications thereon, have been helpful in making the movement more widely known and inspiring others to assist.

Even if both public and private funds for publicity be wanting, the alert park or forest official who is determined that the public shall know what his department is doing, may obtain an outlet for news of his work through the news-gatherers alone. Reporters are always looking for a story, and if they know that a State Park or Forest Director is always willing to help out with a contribution to the day's grist, they will make his office a regular place of call and his announcements will be published.

Two examples of publicity distribution supported by public funds, included in annual department appropriations, which are highly efficient and have secured important results in increased public appreciation of the services advertised, are cited as models which might be followed by any who can adopt similar methods.

In Indiana, the Conservation Department directed by Colonel Lieber, and including the Division of State Parks, and the State Highway Department, combine to employ an experienced newspaper man who handles the publicity for both. Material reported to headquarters, or gathered on field trips from the various division heads and other employees, is prepared in weekly news releases, distributed to every publication in the State and many outside it. Events or developments calling for quick releases are announced without delay, while matter good any time may be mailed for release on given dates. Important events in the work of each department are covered by the joint publicity man, and steps are taken to see that the daily newspapers get the story in plenty of time for their entire

circulations. Photographs and other illustrative material are sent out with regular releases or on special requests. Suggestions are made to editors of newspaper illustrated sections or picture magazines to send their staff photographers to cover news or feature subjects. The scrapbooks of this Indiana publicity man, and the widely diffused public appreciation of the work of the two departments advertised, show the results of this policy of keeping the people constantly and quickly informed of all that is done for them by these agencies.

In New York State, the Department of Conservation, through its Secretary, has for several years maintained a weekly service of distribution of announcements of the work of its divisions, including the State Parks, State Forests, fish and game, and forest nurseries. Most publications, daily, weekly or others, give place in their pages to these releases, and the result has been to popularize the department's program, and to make easier satisfactory results in the annual appeal to the Legislature for adequate appropriations. Photographs are widely distributed within and without the State. An attractive and comprehensive 120-page guide-book to New York State Parks and Highways, with many illustrations, was published last year under the direction of a committee composed of the Conservation Commissioner, Hon. Alexander Macdonald; the Secretary of State, Hon. Robert Moses, also Chairman of the State Council of Parks; and Col. Frederick S. Greene, Superintendent of Public Works, and under the editorship of C. L. Grant, Director of Publications and Records in the Department of State. Several of the regional agencies associated in the State Council of Parks, a division of the Conservation Department, have published attractively illustrated reports, outstanding examples being those of the Westchester County Park Commission and Long Island Park Commission. Most of these regional commissions, either by regular or special mimeographed news releases or by contacts with reporters, obtain large amounts of newspaper space.

An outstanding example of a publicity program supported by private funds is that maintained by the Palisades Interstate Park of New York and New Jersey, initiated by its general manager, Major W. A. Welch, in 1927. Every possible method is used. Regular weekly releases, consisting of news and feature

stories of about 1,000 words each, are mimeographed and mailed to more than 300 publications. When anything of important news value breaks, it is sent at once to the larger dailies and to the news associations, such as the Associated Press, United Press, or International News Service. Some representative of the Commission is always available for telephone communications, and the policy of giving the newspapers what they want is uniformly maintained. The motion picture news agencies are promptly informed of any events which may offer something for them. Sports events, such as swimming races in summer, or skating, and skiing contests in winter, are covered by the park publicity man, or by reporters assigned on the announcements sent to city editors, and pains are taken to see that reports of such events reach the city editor's desk early enough for inclusion in all editions.

In addition to publicity distributed to a general list of news agencies, dailies, and weeklies, constant efforts are made to induce camping and other groups using the park to print material in their organs, or in their local newspapers. Photographs are freely distributed. Interest in the building and upkeep of the park trails has been aroused by enlisting hundreds of members of walking clubs in such work, with consequent word of mouth publicity. Special stories for a variety of publications are written on request.

Radio is used upon the invitation of stations in New York City, whose directors are glad to include news of the motor touring highways and fishing waters and hikers' trails, and the publicity man makes weekly broadcasts in the open season.

I think that the experience of most State Park administrators who have undertaken to provide regular and consistent publicity for their undertakings, is that the newspapers are the best medium for their announcements. Large city dailies, with circulations into the hundreds of thousands, are best, of course. But their editors are canny, and they receive floods of publicity matter, which is scanned with a critically appraising eye. A story must be good to get by the assistant city editor, who receives it first and who will not hand it across the desk to his boss, the city editor, unless he feels sure it merits the attention of that lord of the news. The assistant will not last if he does not assume responsibility and judgment for discarding about

nine-tenths of the stuff that comes in the mail, and he will not pass over any publicity matter unless it is compellingly good.

Special stories appealing to newspaper department heads will often receive attention and space, if written for their readers, such as automobile, educational, and outdoor columns. State Park publicity men should be eager and ready to write special articles for any one paper that hints a desire for them. The spring and fall motor touring seasons offer occasions for articles on automobile routes to and including State Parks. Nature museums and trails and other means for teaching the young people and adults who visit the parks, offer subjects for educational departments of newspapers. The character and circulation of all publications that can be reached and the tastes, inclinations and hobbies of their owners and editors should be studied to make timely and profitable contacts with mediums of publicity.

Dailies in cities and towns near any one of the parks of a State system, and weeklies equipped to set type for stories sent to them, should be cultivated for their interest in the public preserves within easy touring reach of their readers.

Money can be wasted in publicity efforts, with little to show for it. Printed booklets and pamphlets may be gotten up attractively, but will not have the results that regular weekly newspaper releases will secure. Such literature is too apt to be sent to persons who are already sold on the value of State Parks, or to those who put it away on a library shelf where it is seldom seen again by anyone whose interest and support are valuable to the park administrator. Concise guide-books of motor roads, trails, or other park features, distributed to those who wish information on how to reach and to use public preserves, are valuable. So much literature comes into every home nowadays that little of it is carefully perused, what with the radios and talkies. But almost everyone reads a daily newspaper, morning and evening, and if the park publicity man can sell his stuff to the city editor, it will catch the eye of thousands reading their favorite sheets while going to work or returning home, and that means another friend made for parks. Little impressions of this kind, repeated thousands of times, help to build up confidence in park values and park administration and make it easier to maintain parks and increase public and private support for them.

Relation of Landscape Architect to State Park Movement

By S. HERBERT HARE

(Address delivered at the Sixth Annual Meeting, National Conference on
State Parks, Hot Springs, Ark., 1926.)

THE definition of the profession of the landscape architect most generally used is "the art of arranging land or landscape for human use, convenience, and enjoyment." Another is "the art of arranging land for human use with a controlling regard for beauty." A little study of the definitions will show that the field is a broad one, exerting an influence, in one way or another, on the life of nearly every person living under civilized conditions.

The training and experience of the landscape architect covers an unusual combination of knowledge in the fields of design, engineering, architecture, horticulture, and geology. I have placed the field of design first, because, first and last, the landscape architect must think of the beauty of the results of his work. While recognizing all the practical limitations in the various fields mentioned, he must constantly employ his understanding of form, line, color, and texture, and have the creative ability to put together into a picture the various types of ground-forms, vegetation, and structures.

Much of the work of the landscape architect is based upon engineering facts, and results are often obtained by recognized engineering methods and procedure, and in many cases he must collaborate intelligently with engineers. But his point of view is essentially different. The engineer is trained to think of efficiency and economy and mathematical precision as the goal, while the landscape architect, using similar methods, will arrive at a result which represents the utmost efficiency, economy, and precision compatible with the preservation and development of scenic excellence. He must have an instinctive regard for beauty and an understanding of its development and preservation.

These remarks are by no means intended to be disparaging of the work of the engineer, for no one recognizes the value of his services more than the landscape architect. The engineer is

the pioneer of civilization, the man without whom the races could not have traversed continents and seas and conquered the air; but his point of view, with a few notable exceptions, has been essentially a practical one, while that of the landscape architect must be mixed with a generous portion of art, imagination, idealism, and a sense of fitness.

The landscape architect must have a very considerable knowledge in the field of horticulture, and yet he looks upon plants and plant-life as elements in a picture of design more than as individual specimens of purely botanical interest. He must understand methods of plant-growth and analyze types suitable for different situations.

In the field of architecture he must know the traditions back of the various styles and the proper relation of structures and forms to their surroundings, and he must be able to collaborate with architects.

As much of the work of the landscape architect deals with adapting developments for human use to the earth's surface or vice versa, it is necessary that he know the various ground-forms which appear in nature and the geological history back of these ground-forms, as well as the elements of rock and soil that compose the earth's surface and their relations to plant-life and human life. It is, therefore, evident that the fully trained landscape architect is a somewhat versatile individual, using a combination of knowledge different from that of any other field of endeavor.

Now, how can this unusual combination of knowledge and ability be used in connection with State Parks? To answer that question it is necessary to consider the procedure in connection with establishing and developing such parks.

There are three states in this procedure: First, the selection of the site; second, the development of the property; third, the permanent maintenance of the developed park. In all of these stages the landscape architect, by reason of his unusual training and experience, is peculiarly fitted to be of service, and, it might be added, has been of service in many cases.

The first stage, the selection of the site, from the point of view of the landscape architect, involves a most vital decision. Included in the decision are problems of distribution of park-sites, judgment of scenery, proposed use, and extent of land to

be taken; and all this brings us back to the fundamental question, "What is a State Park?"

We are getting many kinds of parks in this country. At one extreme end of the list are the National Parks and at the other end the city parks. The people as a whole understand the value and use of the National Parks and are fast coming to recognize the value and specialized uses of the various kinds of city parks, from squares, neighborhood parks and playgrounds, to parkways and large suburban parks. Between these two extremes are the groups known as County and State Parks. These groups do not seem to be so well understood, and I sometimes think that the public, and in some cases public officials, have but a vague idea of the aims and purposes of the movement. However, I hasten to say that I believe any person who gives the subject careful and serious consideration will arrive at the conclusion that the primary reason for the existence of a State Park is essentially the same as in the case of a National Park, namely the preservation for future generations of some of the natural scenery of the country. The scenery may be of a caliber that would not measure up to the National Park standards, and the area will probably be on the average smaller than that accepted for National Parks, but the motive behind should be the same. The typical, unspoiled scenery of the various regions, the hills, mountains, streams, and lakes, woodland, prairies, swamps, dunes, and cliffs, is a heritage that we are not apt to appreciate until the best of it is spoiled by exploitation or the intensive use of the land.

The mere preservation of natural scenery, however commendable, is not strictly speaking landscape architecture, but any adjustment, however slight, of this natural scenery to the uses of man immediately brings up a problem in landscape design. However, in the selection of natural scenery, the landscape architect, by reason of his study of the elements composing a landscape picture and his trained sense of beauty, is well fitted to give advice. Also, in nearly every case the use of the land in the future will require some development work involving problems in design, and the landscape architect can foresee these problems at the time of the selection of the land and allow them to guide his judgment, particularly as to fixing boundaries.

In some cases the preservation of points of historical or scientific interest may well justify the establishment of a State Park, but here again the preservation or improvement of the scenery in the vicinity should have due consideration, and competent advice at the time of the selection will no doubt be of great value.

Recreation is, of course, a most important consideration in connection with the choice and development of these park properties, and is second only to the preservation of scenery. Recreation, however, is a very broad term. There are several organizations promoting outdoor recreation. From the point of view of the landscape architect, some of the members of these organizations have had, in the past, a biased opinion of the relative value of active recreation as compared with beauty, and in some cities the beauty of the parks has suffered as a result. It is gratifying, however, to note a changing attitude in this connection with a growing conviction that provision for active recreation need not produce a desert-like appearance in city parks, and that trees, shrubs, and landscape beauty have their place along with recreation. This point of view should be carried into State Parks with increasing emphasis on the value of scenic beauty.

To the landscape architect, the principal form of recreation to be recognized in a State Park is that which comes from contact with primitive nature, the "re-creation" of mind and soul by the uplifting effect of natural beauty.

Provision for all reasonable forms of active recreation should be made, but it should be remembered that these are usually provided in the various cities, and a person need not come to a State Park to enjoy them. They are, therefore, incidental to a visit to a State Park, which visit is presumably made for the purpose of getting away from civilized city conditions.

In these considerations of recreation which will come up in selecting the land for a State Park, the landscape architect, being familiar with recreation requirements in park work, can duly weigh the opportunities for recreation as against the value of scenery, and help define boundaries which will give proper consideration to each.

An interesting example of the need for weighing these various requirements of scenery, recreation, and other needs

came up in connection with the proposed National Park in the Great Smoky Mountains. Mr. Shurtleff, Vice-President of the American Society of Landscape Architects, made a personal and unofficial trip of inspection to this region and, with maps in hand, examined the boundaries proposed. His conclusion was that they were wholly inadequate at some points, that while they included the steep slopes they did not include enough of the more level area at the base from which the beauty of the precipitous slopes could be enjoyed and upon which camp-sites and recreation provisions, which would badly scar and ill fit the steep slopes, should be placed. It was as if one were trying to enjoy the beauty of a tall building without the opportunity to get across the street to look at it.

The motor-car has had much to do with the increasing popularity of State Parks, although I am glad to say was not responsible for initiating the movement. In the location of the parks, consideration of accessibility by motor-car is important. The State Park should serve those who reach it by motor, but should not be wholly influenced or controlled by motor travel. Also, a clear distinction should be made between the people who come to the park as their destination for a vacation and those tourists who use it as an overnight stop. The tourist camp is becoming a nuisance in many city parks and is fast being abandoned in favor of the commercial tourist camp which is a legitimate business enterprise. Therefore, from the point of view of the landscape architect, the tourist camp is secondary to the beauty of scenery, and land which rises to the dignity of a State Park by reason of scenery and extent will be something more than a tourist camp. Let us not allow the tail to wag the dog.

In the development of a State Park there is probably no doubt that a landscape architect can be of service. The location of every road, trail, building or shelter, tourist camp, automobile parking-space, recreation area, or other features involves a problem in design, and these features should have thorough study so that they will bear the proper relation to each other and become a part of the scenery and not a scar on the face of nature. A road, for example, by reason of its location, alignment, grade and adjustment to topography can be a thing of beauty or it can ruin the landscape. In either case the road will serve

its practical purpose; the difference is in the trained imagination exercised in its design and in the appearance of the result. The plan for a State Park should define the use to which various areas are to be subjected, and the plan, if properly made, can often guide the use.

In the State of Iowa the State Parks are under the control of the State Board of Conservation, and this Board is advised in the selection of land and in its development and maintenance by a landscape architect of the Iowa Extension Service at Ames, Iowa. In the National Parks the Government now employs a landscape architect to plan developments. He is officially known as a landscape engineer, perhaps for fear that the term landscape architect would be misunderstood and the man's services classed as a luxury.

The maintenance of a State Park is hardly less important than its development. Without proper control, the very purpose for which it was created will be defeated. Nature is ever changing. Vegetation is constantly going through a process of growth, maturity, and decay, and may be seriously injured by intensive use of the land. Even the very ground surface changes by the process of erosion. The many small adjustments made by man from year to year may, in the aggregate over a period of years, result in great changes in the scenery. The building of roads, trails, and other artificial features may change natural drainage channels and start new points of erosion. Wild flowers may quickly be exterminated by picking or by the grazing of cattle. Forest fires, resulting from careless picnic parties, may do damage in a few hours that cannot be repaired in a century. All this means rules and regulations and intelligent supervision.

Here also the landscape architect can be of service in preserving the integrity of the original picture, in guiding such adjustments as conditions dictate from time to time, and in helping to formulate rules to prevent the spoiling of nature by unthinking persons who use the parks.

This interest in State Parks is not a new movement. In Massachusetts the preservation of natural scenery was carried on in the past century through the "Trustees of Public Reservations," and Charles Eliot, landscape architect, took an active part in that work. Boston's Metropolitan Park System, being under State control, has portions of the system such as Middlesex

Fells and Blue Hills which are in effect typical State Parks. On Great Blue Hill is a memorial seat to Charles Eliot, commemorating his work as a landscape architect. The names of Frederick Law Olmsted, Sr., and John C. Olmsted might well be mentioned in connection with this and other work, and many other landscape architects in various parts of the country have been actively helping in various stages of State Park development.

Let us not be led too far from the fundamentals in thinking of these problems. It is good to stop and reflect from time to time, to ascertain if we are drifting with the tide or pursuing a definite course. Conservation of all natural resources will become more important, and conservation of beautiful natural scenery and wild life is an important phase of conservation in our national life. It is not the number of parks of which a State should boast, or the fact that they have a park every hundred miles, or that they have so many miles of roads and trails in the parks, but the quality of scenery which has been preserved, and the fact that this has been made accessible to the public with the least interference with the beauties of nature.

How to Enjoy State Parks

By WILLIAM D. MACCLINTOCK

(From the Sixth Annual Report, Indiana Department of Conservation)

THE enjoyment of nature does not come naturally except to a few persons. Most have to be trained; all can increase this enjoyment by taking thought.

Natural scenery enjoyed is one of life's greatest joys. It is restful, prevents worry, increases our sense of beauty and wonder, brings the mind in contact with things great and fair, opens for us the "spirituality of the visible universe."

NOTES

1. Compel yourself to go in the right state of mind, on purpose to look, to give yourself up to nature, determined to enjoy.

Don't think of business, your household cares—get rid of yourself.

Don't take along and ride your old philosophies of state, business, society, or theology. Give yourself up to the spirit of the place you visit. Let nature teach you. "There is a spirit in the woods."

Especially leave sport behind.

2. Go as much as possible alone and don't talk much. Talking nearly always disturbs pure enjoyment. Talk after you come in.

Avoid or suppress the companion who is always calling attention to what he sees and thinks. Read William Hazlitt's essay "On Going a Journey."

3. Always walk—if possible. Use your car to get to the place to walk. You must not go fast if you are to see and feel Nature. The mind must have time to respond, to feel, and to enjoy. Rapid movement is right for its own kind of pleasure but never for enjoying trees, birds, plants, rocks, and your own soul.

4. Get off the main highways into paths and silent places.

5. Compel yourself to take interest in little things. There is great danger in looking only at the big and heroic items in

nature. They too; but most people will be trained to enjoy nature by the smaller things nearby.

Listen carefully to bird-songs. Look at and feel the structure of trees and plants. Love and play with all the forces of water in the brooks and waterfalls. Take note of the countless colors of things. Study a little geology and wonder over stones and the ancient animals.

Take away with you a certain number of these accurately seen points.

6. Notice that our minds cannot hold, more than a moment or so, a bit of landscape; then we begin to slip into other thoughts, and at once find, with the poet Wordsworth, "pleasant thoughts bring sad thoughts to the mind." Learn the art of preventing this. It is done by alternating the large landscape view with parts of it and smaller things nearby.

Look with love and wonder at the whole view; then when the mind tires or begins to think of other things, pick out some one aspect of the scene and see that. Then go back to the whole. So alternating, the mind is rested but kept from slipping to sad thoughts.

7. Frequently close the eyes and look at what you have seen with the mind's eye. Then describe it to yourself very accurately. In other words, try fixing it in the mind.

8. Pick out something to know well—birds or trees and plants or rocks or colors. Read up on your subject and begin to accumulate some exact knowledge. It is a great pleasure to know and have your friends know that you know something well, especially if you get it by your own observations.

9. Don't begin by comparing things you are looking at with something somewhere else. This is often conceited and always deadly. Enjoy each thing for itself and here and now. Therefore, don't expect the wrong things. Don't ask for high mountains and seashores in Indiana. Each spot of earth has its own special beauty. Don't spoil it by demanding something that belongs elsewhere.

10. Take many photographs of places and items you like. Arrange them in books. Don't bore your friends by much showing them. The latter will seldom see just the beauty you do. But go over them often and put back in your mind the

feelings you had when you saw and enjoyed them. Take pencil and paper with you and draw (oh, yes, you can) little things you like. They will be good enough to call them to your mind.

11. Let the mind be as it will, naturally resilient, full of awe and wonder. These are great, beautiful, wonderful things you are playing with. The very work of God.

12. Take a little food along (only a little)—a sandwich and cheese and an apple—and take a meal quietly as the gentle creatures about you will be doing. It will add to your enjoyment.

Connecticut State Parks

A FINANCIAL REPORT TO THE SHAREHOLDERS

By ALBERT M. TURNER, "A Shareholder of Record."

(Published under authority of the Connecticut Park and Forest Commission, May, 1930.)

CONNECTICUT STATE PARKS is a subsidiary Company organized in 1913 by the State of Connecticut to provide open spaces for public recreation. The conditions of its charter do not permit any commercialization of its product, nor any cash dividends on its capital stock, so that its financial reports have been virtually limited to cost accounting.

While cost accounting may satisfy the terms of its charter, the shareholders are fairly entitled to some knowledge of the actual returns from their investment, if only as a guide to further investments of the same kind.

It may first be well to point out certain peculiarities of the Company; for instance, its revenues are dependent almost entirely upon the discretion of the parent Company, which is supported by various assessments upon its own shareholders, who are the people of Connecticut.

The people of Connecticut all receive upon entering the State one share each of Connecticut Common Stock, which since 1913 carries with it one share of State Parks Common.

The shares known as Connecticut Common are of no par value, and pay no cash dividends, but the record shows that a great many shareholders have died in defence of their shares.

This fact sufficiently attests the value of such shares, though they are not listed on any stock exchange, nor even handled on the curb. They were not affected by the persistent rumors of decline which appeared on the front pages last October; a fact which speaks eloquently for their general stability.

In like manner, State Parks Common has no par value, and since it is not negotiable, has no market value, but its cost to the shareholders is a matter of record, and is a prime factor in any discussion of its intrinsic worth.

The shareholders do not all appear as individuals on the books of the Company, but their number in any year may be

closely estimated from the published enumerations undertaken every tenth year by the United States of America, a holding corporation.

Comparing the number of shares outstanding in any year with the Company's expenditures in that year will evidently show the costs per share for that year, and if this is repeated for each of the sixteen years in the period ending December 31, 1929, a total cost per share and an average cost per year may be readily established.

It should here be noted that the outstanding shares increased in that period from about 1,200,000 to about 1,700,000, a circumstance almost entirely beyond the control of the Directors.

PLANT INVESTMENT

Taking first the capital account, including only land and improvements, the total original cost of the land purchased by the Company during the sixteen years was	\$550,624
Gifts and donations amounted to	103,121
The original cost of the improvements required for use of the shareholders was	402,850
Making the total amount of invested funds derived from taxation with donation	1,056,595

Taking into account the varying annual costs and the annual increase in outstanding shares, this sum corresponds to a total cost per share of \$0.63, or about 4 cents per year.

As to present value, the land has been affected by a general increase in Connecticut land values and by the natural increase of timber growth; it is certainly fair in considering cost alone to add interest at 5 per cent compounded annually to the invested funds, being merely what the shareholder might have had from a savings bank, and if this is done it establishes what may be called a book value of \$1,403,846.

On this basis the book value of a single share is now \$0.83, or a net gain of 32 per cent accruing to all shares, regardless of the water added by issue of some 500,000 new shares.

The distribution of such new issues without money and without price may or may not be strictly in accord with sound business principles, but as before noted the responsibility for such action does not rest appreciably upon the Directors, as such.

The real estate represented by this book value includes

thirty-eight holdings, containing in all some 9,560 acres of land, and if any shareholder considers the valuation inflated, he should go into the Connecticut real estate market and see what a similar collection would cost him today.

Regardless of any other system of valuation, the recognized principles of sound investment require only that dividends, if any have been earned, shall be based upon such a book value of original cost plus accrued interest.

It is next necessary to consider the annual costs of maintenance and ordinary replacements, which for the sixteen year period amount to \$354,135, or an average of about 2 cents per year per share.

Against this sum must be credited a total reported attendance of 5,760,207 shareholders or their guests, who appeared in person to claim their dividends. Those dividends have been paid in full, on demand, and without credentials other than those stamped on the face of the shareholder. But no way has been found to pay such dividends by mail, or to carry them over from year to year.

The shareholder must be a go-getter, but he is limited in very few other ways. There is a dividend waiting for him on 38 State Parks 365 days every year.

From a business point of view this way of doing things may indeed seem ridiculous, but from a human point of view it has certain advantages, and the shareholders are first of all human beings.

And it may not be impossible to face even a business man with these facts of record, if he will only grant that a day in a State Park has a cash value. Because even a business man cannot compare values of unlike things without some common measure of value. There is always danger in using such a measure that the power of continued association may lead to confusion of thought and the delusion that the value is in the measure itself, which from a human point of view is not ridiculous, but pathetic. But in this kind of a world there is danger even in being safe, and somehow if days are to be credited against dollars, a balance must be struck.

Fortunately, there is a recorded fact which can be cited; the State Parks Company of Indiana, carrying on a similar enterprise in that State, has for some time collected an admission fee

of 10 cents from its own shareholders when they enter a State Park, and the recreation day in Indiana has therefore an established and recognized market value. Would any Connecticut business man care to argue that the same thing is worth less in Connecticut?

Be that as it may, if the market value in Indiana is applied to the records of Connecticut use, there is at once an apparent sum of \$576,020 to be credited to the State Parks, and deducting the total cost of maintenance, \$354,135, there is left the respectable credit balance of \$221,885 available for dividends.

Now if the sixteen-year period is reviewed in detail, it appears that the Directors were occupied during the first six years exclusively with the acquisition of land, and kept no record of attendance. During this six-year period, however, there was an item of overhead charged to maintenance amounting to \$17,581, which had to be carried as a net loss until the first credits from use were sufficient to balance it, so that the first dividend on book value was not earned until 1921, and amounted in that year to only seven-tenths of 1 per cent. The next year, free of debt, cleared 3 per cent, and in 1925 a dividend of 6.4 per cent was earned.

Taking the average for the nine years beginning with 1921, all previous losses having been written off by use, the State Parks of Connecticut can show annual net earnings of 3 per cent on book value, the only assumption being that a day on a Connecticut State Park is fairly worth 10 cents.

If any shareholder thinks it worth less, that is his loss; if he thinks it worth more, that is his gain.

If any shareholder has for sixteen years contributed 4 cents a year for land and improvements, plus 2 cents a year for care and maintenance, without once visiting a State Park to collect a 10 cent dividend, he has only the sad consolation that he has done his bit to provide 5,750,207 recreation days for his friends and neighbors who wanted them enough to go get them.

But he should never forget that his 96 cents measures only the cost to himself; it is not a measure and it never can be a measure of the benefits he has conferred upon those go-getters; not even a business man could maintain the affirmative of that proposition, that is, at least, not a *live* business man.

State Trails—A Corollary of State Parks

By ALBERT M. TURNER

(Address delivered at the Fourth Annual Meeting, National Conference on State Parks, Gettysburg, Pa., 1924.)

BEFORE tackling a corollary, whatever that is, it is customary to state and demonstrate a theorem.

In discussing the State Park we have all had to face again and again that deadly question, "What is it for?"

And we usually gasp and let fly a volley of our best stock phrases concerning recreation, the preservation of natural scenic beauty and historic association, and the complexity of our modern civilization, with side remarks on the alarming increase of insanity and the latest wave of crime.

Now, after ten years in State Park work, and among friends, I would put it something like this: the chief aim of State Parks is to maintain and glorify the works of God rather than the works of man, to the great end that through study and love of His works man may come into closer harmony and communion with God.

I can only state the theorem as it appears to me; its demonstration rests upon us all and upon those who come after us.

But if you accept that statement of our ideal, State Trails fall naturally into line, corollary or not, and it only remains to explain and define just what we mean by State Trails.

The word trail, like the word park, has attained so great popularity that the thing it stands for is about as uncertain as the hour of an appointment for 10 o'clock in summer.

In this connection, therefore, it is advisable to say that we are talking about a footpath for pedestrian humanity to walk on, where it will not have to dodge either rubber tires or steel-shod hoofs.

For the phrase State Trail we shall understand a carefully selected strip of land over which the State has acquired a right of way for pedestrians, or to which it holds complete title, and upon which it maintains a cleared footway, suitably marked and signed for public use.

Public highways have long been accepted as a matter of course; public parks and forests are now taking their place in

the same category; public footways have been too long overlooked, but we are slowly learning that these are all special features in the general subject of regional planning, to which the State must increasingly give attention.

We are still distinguishing sharply between highways and parkways, though there is now no physical reason why a large percentage of our highways should not also become parkways.

Public footways may likewise serve as convenient short-cuts in every-day use, and in most of the older countries have long been recognized as necessities.

There is nothing new under the sun, and the State Trail is only a revival of the most ancient and primitive habit of the race—that of following the easiest way.

But we are discussing its relation to State Parks rather than highways.

Now there is one fundamental principle in regard to parks, for which I am indebted to George A. Parker, of Hartford and America, and it is worth repeating and remembering.

“When you are in a park, all that you see is in the park.”

Lawyers will never understand this; they believe only in certain time-honored forms of incantation adopted in their so-called instruments of conveyance, which are all very well in their way, but tell us nothing of the blue dome overhead, or the form and distance of the sky-line.

In the heat of animated discussion it has repeatedly been charged that I want the whole State for a park, and I used to feel a becoming sense of reproof under such charges, and hasten to enter a demurrer or such-like feeble attempt to act as a stay of proceedings. But with the help of State Trails and Mr. Parker's definition of real park boundaries, I now plead guilty as charged, and let the lawyers make the most of it.

There are many varieties of States, but like peas, they may be broadly classified as smooth and wrinkled. Connecticut is in the wrinkled class, and with its growing system of State Parks and Forests, with a little more attention to park treatment of its highways, and with State Trails over its ridges, the whole State may in reality become a park, regardless of legal theories about titles.

State Trails on the ridges, because from their tops a few acres of legal title may include 50 square miles of park, if we only

remember that all we see is in the park. The blue distance is always pleasing; he who looks on it owns it as much as anyone can.

But in a wrinkled State there are hollows between the ridges, and for both convenience and contrast our trails will in many places follow water-courses, as trails always have. The mountain stream needs no special advocate; it has always been able to sing its own song, and as a feature of earth sculpture it is merely a water-course.

The whole art of sculpture has but two resources, the bump and the hollow, but knowledge of this fact alone does not produce the great sculptor.

The art of trail-making is virtually among the lost arts, and will have to be rediscovered, or rather worked out anew to meet the new conditions, and as in all the arts, we have never improved on the first method, the old method of trial and error, with the odds on any particular trial heavily against us.

The only possible short-cut is to study the work of others—their mistakes are so relatively glaring; and we have in New England, fortunately, a complete line of samples, the work of the Appalachian Mountain Club and its numerous progeny for the last fifty years.

The New England Trail Conference has collected data on 2,000 miles of New England trails, opened and maintained by voluntary workers, and some study of these existing trails should be the first step in any proposed action involving the location or clearing of trails.

And think not it is a theory which confronts us; the Commonwealth of Massachusetts has this year taken up the trail man's burden and has set its Conservation Commissioner the Herculean task of opening public trails to suit everybody.

In the fierce light of criticism which will beat upon his best efforts, we shall all learn more or less about the neglected art.

This is not the place for thrashing out details; the State Park has come unmistakably in response to the call, "Back to nature," and the most natural way is on foot, along the trail.

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